

**ANDHRA PRADESH SOLAR POWER CORPORATION Pvt. Ltd**  
(A J V COMPANY OF GOVT OF ANDHRA PRADESH AND GOVT OF INDIA)

**ANANTHAPURAMU ULTRA MEGA SOLAR PARK (1500 MW)**  
**(N.P.KUNTA MANDAL)**  
**&**  
**ANANTHAPURAMU-II ULTRA MEGA SOLAR PARK (500 MW)**  
**(TADIPATRI MANDAL)**

**BIDDING DOCUMENTS**  
**FOR THE WORK OF**

**Name of Work: APSPCL –Carrying out Operation and Maintenance of 2 No. 220/33 kV Pooling Sub Station-3&4 and associated 220 kV DC lines including 33 kV lines at N.P. Kunta site of Ananthapuramu Ultra Mega Solar Park (1500 MW) and 2 Nos. 220/33kV Pooling Sub Stations-1&2 & associated 220kV DC lines including 33 kV lines at Talarichervu site of Ananthapuramu-II Ultra Mega Solar Park (500 MW), Ananthapuramu District, Andhra Pradesh for a period of 1 year.**

**TWO PART BID**

**TENDER SPECIFICATION**

**NOTICE INVITING TENDERS (NIT) NO.**

**APSPCL-e-E- 25/2021-22/EE/Tech/APSPCL, Dt.23.03.2022**

<b>INDEX</b>		
<b><i>S.No.</i></b>	<b><i>Description</i></b>	<b><i>Page No.</i></b>
1.	Notice inviting Tender	
2.	Pre-Qualification Requirements	
3.	Tender Form	
4.	Detailed Tender Notice	
5.	Tenderer's and Contractor's Certificate	
6.	Section –I (Supplemental Conditions to the Preliminary Specifications to the APSS)	
7.	Section-II (Site Conditions)	
8.	Special Conditions of Contract	
9.	General Conditions of Contract	
10.	Section – III (Technical Specifications)	
11.	Schedule – A – Bill of Quantities	
12.	Particulars of Tenderer	
13.	Proforma of Self Declaration	
14.	Deviation (Technical and Commercial)	

**ANDHRA PRADESH SOLAR POWER CORPORATION PVT. LTD.  
ANANTHAPURAMU ULTRA MEGA SOLAR PARK (1500 MW)**

**TENDER NOTICE**

**Tender Notice No. APSPCL-e-E- 25/2021-22/EE/Tech/APSPCL, Dt.23.03.2022**

1.	Department Name	Andhra Pradesh Solar Power Corporation Pvt Limited (A J V Company of Govt. of Andhra Pradesh and Govt. of India)
2.	Circle/Division Name	Executive Engineer/Tech/APSPCL/Tadepalli/Guntur Dist./A.P
3.	Tender Notice No.	<b><u>APSPCL-e-E- 25/2021-22/EE/Tech/APSPCL, Dt. 23.03.2022</u></b>
4.	Name of Work	APSPCL –Carrying out Operation and Maintenance of 2 No. 220/33 kV Pooling Sub Station-3&4 and associated 220 kV DC lines including 33 kV lines at N.P. Kunta site of Ananthapuramu Ultra Mega Solar Park (1500 MW) and 2 Nos. 220/33kV Pooling Sub Stations-1&2 & associated 220kV DC lines including 33 kV lines at Talarichervu site of Ananthapuramu-II Ultra Mega Solar Park (500 MW), Ananthapuramu District, Andhra Pradesh for a period of 1 year.
5.	Estimated Contract Value (Approximately)	<b>Rs. 3,29,78,137/-</b> (Rupees Three Crores Twenty Nine Lakhs Seventy Eight Thousand One Hundred and Thirty Seven Only) excluding GST
6.	Period of Contract	1 Year
7.	Performance Guarantee	10% of the contract value for a period of 1 year with 2 months of claim period
8.	Form of Contract	L.S
9.	Tender Type	Open
10.	Tender Category	Service
11.	Transaction Fee Payable to MD/ APTS payable at Vijayawada (including GST)	Rs.11,675/- (Rupees Eleven Thousand Six Hundred and Seventy Five Only)
12.	Bid Security (EMD)	Rs.3,29,781/- @ 1% of ECV (Rupees Three Lakh Twenty Nine Thousand Seven Hundred and Eighty One Only)
13.	Bid Security Payable	By way of online payment through e-procurement portal
14.	Process Fee	Not Applicable
15.	Schedule Available Date & Time	23 .03.2022, 5:00 P.M.
16.	Schedule Closing Date & Time	13.04.2022, 4:00 P.M.
17.	Bid Submission closing Date & time	13.04.2022, 5:00 PM
18.	Bid Submission	<b><u>Online</u></b>
19.	Bid Validity	180 days from the date of opening of the Bid

20.	Pre Bid Meeting	Not Applicable
21.	Pre Qualification/ Technical Bid Opening Date (Qualification and Eligibility Stage)	18.04.2022, 3:00 P.M.
22.	Price Bid Opening & Reverse Tender Date & Time	19.04.2022, 11:00 A.M. onwards
23.	Eligibility Criteria	<p><b>1. Registration:</b></p> <p>i) The firm should have “A” Grade Electrical License</p> <p>ii) The firm should have valid Labour License.</p> <p>iii) The bidder should be registered with ESI &amp; EPF authority (submit copy of Registration Certificate).</p> <p><b>2. Experience:</b></p> <p>i) The bidder should have carried out operation &amp; maintenance of 220kV Sub-Station and 220 kV transmission lines for a minimum period of one year during the last five financial years.</p> <p>ii) The bidder should have carried out operation &amp; maintenance of at least 1 No. 220kV Sub-Station in any one year during the last five financial years.</p> <p>iii) The bidder should have carried out operation &amp; maintenance of 220 kV transmission lines with a minimum length of 5 km in any one year during the last five financial years.</p> <p>iv) The bidder should have experience in preventive and breakdown maintenance of 220kV substation and associated 220 kV transmission lines.</p> <p>v) The bidder shall have all the above experience and the experience in supply of manpower/assistance for operation &amp; maintenance of substations and transmission lines alone are not eligible for quoting the tender.</p> <p>vi) The firm shall enclose P.O./Work order and completion certificate from the client clearly stating the above experience.</p>
24.		<p><b>3. Solvency:</b></p> <p><b>Liquid asset/credit facilities/Solvency certificate</b> (not older than 12 months from the date of availability of tender specification on e-procurement platform) issued by any Indian Nationalized Bank or scheduled bank of value not less than 1/4<sup>th</sup> of estimated contract value (i.e., Rs. 82 Lakhs approx).</p>
		<p><b>4. Turnover:</b> The bidder should have aggregate turnover of 3 times of estimated contract value (i.e., 10 Crores approx) during last three preceding financial years put together i.e. from FY 2018-19 to FY 2020-21. The bidder shall submit annual turnover certificate duly certified by Chartered Accountant (CA).</p>

25.		<b>5. General:</b> <i>Responsibility for correctness of the information submitted in the online bid lies with bidder. If any information furnished in the bid is proved to be false at a later date, the bid will not only be rejected but the bidder will be <b>BLACKLISTED</b>.</i>
26.	Place of Opening of Tenders	In the chambers of the Executive Engineer/Tech/ APSPCL, Flat No. 401, 4 <sup>th</sup> Floor, Garuda Enclave, Beside T.G Plaza, Tadepalli, Guntur Dist, A.P - 522501.
27.	Officer Inviting Bids	Executive Engineer/Tech/ APSPCL/Tadepalli/Guntur Dist./A.P.
28.	Address	Executive Engineer/Tech/ APSPCL, Flat No. 401, 4 <sup>th</sup> Floor, Garuda Enclave, Beside T.G Plaza, Tadepalli, Guntur Dist, A.P - 522501.
29.	Contact Details	Executive Engineer/Tech/ APSPCL, Flat No. 401, 4 <sup>th</sup> Floor, Garuda Enclave, Beside T.G Plaza, Tadepalli, Guntur Dist, A.P - 522501. E-Mail: <a href="mailto:md.apspcl@gmail.com">md.apspcl@gmail.com</a> / <a href="mailto:md.apspcl@ap.gov.in">md.apspcl@ap.gov.in</a> – Ph.No: 08645-274041
30.	Procedure for bid submission	a) The tender should be in the prescribed forms which can be obtained from ‘e’ procurement platform from the date of electronic publication up to the time and date indicated in the tender notice. The intending bidders shall enroll themselves on the ‘e’ procurement market-place <a href="http://www.apecprocurement.gov.in">www.apecprocurement.gov.in</a> Those contractors who register themselves in the ‘e’ procurement market place can download the tender schedules at free of cost. The bidders shall authenticate the bid with his digital certificate for submitting the bid electronically on ‘e’ procurement platform <b>and the bids not authenticated by digital certificate of the bidder will not be accepted on the e-procurement platform</b> following the G.O.Ms.No.6, I.T&C Department, dated. 28-02-05.
		b) Intending bidders can contact office of the Executive Engineer/Tech/APSPCL/Tadepalli/Guntur Dist.–522501 for any clarification/information on any working day during working hours  c) The bidders who are desirous of participating in e-procurement shall submit their bids etc., in the standard formats prescribed in the tender documents, displayed at “e” market place. The bidders should invariably upload the statement showing the list of documents etc., in the “e” market place in support of their Technical bids. The bidder should upload scanned copies of all relevant certificates. The bidder shall sign on all the statements, documents, certificates, uploaded by him, owning responsibility for their correctness / authenticity  d) The Bidder shall authenticate the bid with his digital certificate for submitting the bid electronically on e-Procurement Platform and the bids not authenticated by Digital certificate of the bidder will not be accepted on the e-Procurement platform.  e) The Department shall carry out the bid evaluation solely based on the uploaded documents, online payment towards EMD in the e-procurement system.  f) The Department will notify the successful bidder for submission of original hard copies of all uploaded documents prior to issue of LOI.

		<p>h) The successful bidder shall invariably furnish the Online payment receipt towards EMD, Certificates/documents of the uploaded scanned copies to the Tender Inviting Authority before stipulated time given to him either personally or through courier or post and the receipt of the same within the stipulated date shall be the responsibility of the successful bidder. The Department will not take any responsibility for any delay in receipt/non-receipt of certificates/documents from successful bidder before the stipulated time. On receipt of documents, the Department shall ensure the genuineness of all other certificates documents uploaded by the bidder in e-procurement system in support of the qualification criteria before issue of LOI.</p> <p>i) If any successful bidder fails to submit the original hard copies of uploaded certificates/documents within the stipulated time or if any variation is noticed between the uploaded documents and the hard copies submitted by the bidder, the successful bidder will be suspended from participating in the tenders on e-procurement platform for a period of 3 years.</p>
		<p>The e-procurement system would deactivate the user ID of such defaulting successful bidder based on the trigger /recommendation by the Tender Inviting Authority in the system. Besides this, the department shall invoke all processes of law including criminal prosecution of such defaulting bidder as an act of extreme deterrence to avoid delays in the tender process for execution of the development schemes taken up by the Government.</p>
31	Procedure for Online Reverse Auction	<p><b>1. Reverse Tendering Process:</b></p> <p>The following reverse tendering procedure will be followed as per G.O. MS.No: 67, WR(Reforms), Dept., Dt: 16.08.2019.</p> <p>a) All bidders shall self-declare their details under each technical and financial criterion on the e-procurement platform along with an undertaking confirming their compliance with the technical and financial criterion prescribed in the bid document and upload the same in the e-procurement website.</p> <p>b) All bidders shall submit supporting documents for their submittals under each technical and financial criterion. In case of documents found to be defective, incorrect or forged and therefore claim of qualification is not supported, severe action including forfeiture of EMD shall be taken.</p> <p>c) The Price bids of the qualified bidders shall be opened and the lowest quoted price bid among the qualified bidders in the tender process shall be determined.</p> <p>d) To conduct the reverse tender process at least two bidders would be required.</p>

	<ul style="list-style-type: none"><li>e) If the number of bidders participated in initial tendering are more than five (05), 60% of the bidders participated in initial tendering (counting from the bidder who has quoted lowest initial price offer) or five(05) whichever is more will be allowed for reverse tendering. If the number of bidders participated are equal or less than five (05), all bidders will be allowed to participate in the reverse tendering.</li><li>f) The L1 Price Offer (Initial) shall be the maximum allowable Bid price for the reverse tendering process.</li><li>g) Only one round of reverse tendering shall be carried out in which bidders can revise their bids multiple times within the time limits specified.</li><li>h) At the start of the Reverse Tendering process the Maximum Allowable Bid Price will be set and bidders shall submit their bids in an online platform.</li><li>i) Names of the bidders / vendors shall be anonymously masked in the Reverse Tendering process and vendors will be given suitable dummy names.</li><li>j) The initial period of the Reverse tendering process will start after 3 hours, following which there will be auto extensions of time by 15 minutes in case of any reduction in bids recorded in the prior 15 minutes.</li><li>k) Only the current L1 bid shall be visible to all bidders who may revise their bids until the end of the process.</li><li>l) Decrements made in each subsequent bid shall not be less than 0.5% of the IBM/ECV uploaded.</li><li>m) The L1 bid may be determined following a period of inactivity of more than 15 minutes of reverse bidding after the initial 3 hour period after closure of the main bidding.</li><li>n) Following the determination of the L1 bid, the L1 bidder's supporting documents under each technical and commercial criterion shall be verified. The reverse tendering process shall be on hold for a maximum period of 24 hours (1 day) while the L1 bidder's supporting documents are verified.</li><li>o) Upon successful verification of the L1 bidder's supporting documents, the reverse tendering process shall be closed declaring the L1 bidder as "successful bidder" and the remaining bidders in the process shall be notified as "unsuccessful" and their respective EMDs shall be refunded.</li><li>p) In case there are discrepancies between the L1 bidder's</li></ul>
--	--

		<p>declarations under the technical and financial criteria and the supporting documents submitted, the L1 bidder shall be disqualified, his EMD shall be forfeited, he will be removed from the reverse tendering process and the remaining bidders shall be notified of the date and time when the reverse tendering process shall be resumed.</p> <p>q) The reverse tendering process shall be resumed with the L2 price as the Maximum Allowable Bid Price.</p> <p>r) Only 15 minutes shall be initially allowed for the remaining bidders to revise their bids, subject to automatic extensions of 15 minutes in case of any reduction in bids recorded in the prior 15 minutes.</p> <p>s) The reverse tendering process shall continue until the determination of a successful bidder.</p>
32.	Statutory Requirements	<p>The tenderer shall fulfill the following statutory requirements.</p> <p><b><u>GST</u></b> The tenderer should have registration under GST from concerned department. The rates are exclusive of GST. Applicable GST as on date will be allowed against submission of GST invoice.</p>
33.	Other Payments to be made	<p>Apart from the Bid Security (EMD) the tenderer shall be liable to pay the following amounts:</p> <p><b>a) <u>Transaction Fee</u>:</b> The participating bidders have to pay transaction fee of Rs. 11,675/- @0.03% (subjected to a maximum of Rs. 10,000.00) on estimated contract value of work with GST @ 18% i.e. Rs. 10,000/- (Rupees Ten Thousand Only) in favour of MD/ APTS payable at Vijayawada at the time of bid submission electronically.</p> <p><b>b) <u>Corpus Fund</u>:</b> Successful bidder has to pay Corpus fund <b>Rs. 10,000/-</b> @ 0.04% (subjected to a maximum of Rs. 10,000.00 for works with ECV/QV up to Rs 50.00 crores and Rs 25,000.00 for works with ECV/QV more than Rs 50.00 crores) through demand draft in favour of Managing Director, APTS, Vijayawada towards corpus fund at the time of concluding agreement.</p>
34.	Documents to be submitted to the Tender inviting authority.	<p>All the bidders shall upload the scanned copies of the following documents on e-procurement system</p> <ol style="list-style-type: none"> <li>1) Online Payment for EMD amount (this will be the primary requirement to consider the bid as responsive) – Mandatory.</li> <li>2) Self declaration form with Signature. – Mandatory.</li> <li>3) “A” Grade Electrical License– Mandatory</li> <li>4) Valid Labour License – Mandatory.</li> </ol>



	<p>5) The Bidder should be registered with ESI &amp;EPF authority (submit copy of Registration Certificate) – Mandatory.</p> <p>6) The bidder should have carried out operation &amp; maintenance of 220kV Sub-Station and 220 kV transmission lines for a minimum period of one year during the last five financial years – Mandatory.</p> <p>7) The bidder should have carried out operation &amp; maintenance of atleast 1 No. 220 kV Sub-Station in any one year during the last five financial years - Mandatory.</p> <p>8) The bidder should have carried out operation &amp; maintenance of 220 kV transmission lines with a minimum length of 5 km in any one year during the last five financial years - Mandatory.</p> <p>9) The bidder should have experience in preventive and breakdown maintenance of 220kV substation and associated 220 kV transmission lines – Mandatory.</p> <p>10) The bidder shall have all the above experience and the experience in supply of manpower/assistance for operation &amp; maintenance of substations and transmission lines alone are not eligible for quoting the tender – Mandatory.</p> <p>11) The firm shall enclose P.O./Work order and completion certificate from the client clearly stating the above experience – Mandatory.</p> <p>12) Solvency Certificate: Liquid asset/credit facilities/Solvency certificate (not older than 12 months from the date of availability of tender specification on e-procurement platform) issued by any Indian Nationalized Bank or scheduled bank of value not less than 1/4<sup>th</sup> of estimated contract value (i.e., Rs. 82 Lakhs approx.).– Mandatory.</p> <p>13) Annual Turnover Certificate: The bidder should have aggregate turnover of 3 times of estimated contract value (i.e., Rs. 10 Crores approx.) during last three preceding financial years put together i.e. from FY 2018-19 to FY 2020-21. The bidder shall submit annual turnover certificate duly certified by Chartered Accountant (CA). – Mandatory</p> <p>Other documents to be uploaded:</p> <p>1) Copies of Income tax returns for the last three years</p> <p>2) Copy of PAN</p> <p>3) Copy of GST Registration</p> <p>Note:</p>
--	---

		<p>1) The tenderer is liable to be disqualified, if he is found to have mislead or furnished false information in the forms / Statements / Certificates submitted in proof of qualification requirements and record of performance such as abandoning of work, not properly completing of earlier contracts, inordinate delay in completion of works, litigation history, financial failures and or participated in the previous tendering for the same work and has quoted unreasonable high price etc.</p> <p>2) Even while executing the work, if found that the contractor had produced false/fake certificates, he will be black listed and the contract will be terminated and his Bid security will be forfeited and work will be carried out through other agency at his cost and risk.</p>
35.	Other relevant information	<p>1. APSPCL reserves the right to reject any or all the tenders without assigning any reasons thereof.</p> <p>2. APSPCL reserves the right to amend or modify the tender and its conditions before 12.04.2022, 4.00 P.M. (The details will be updated in APSPCL web site)</p> <p>3. Any other condition regarding receipt of tenders in conventional method appearing in the tender documents may please be treated as not applicable.</p> <p>4. The contractors have to upload the information preferably in Zip format.</p> <p>5. The contractors should upload the documents duly signing each and every paper.</p> <p>For all clarifications &amp; guidance, the bidders may contact the Executive Engineer/Tech/ APSPCL/Tadepalli/ Guntur Dist. – 522501.</p>

**Sd/xxx**

**EXECUTIVE ENGINEER/TECH**

To  
The Bidders through Notice Board/web publication.

**Copy to the:**

- 1) Notice Board.
- 2) The Dy.CCA / APSPCL / Tadepalli/ Guntur Dist. for information.
- 3) The Dy. Executive Engineer/ Electrical/ APSPCL /Kadiri for information.

## **PRE-QUALIFICATION BID**

1. **Name of the Work:** APSPCL –Carrying out Operation and Maintenance of 2 No. 220/33 kV Pooling Sub Station-3&4 and associated 220 kV DC lines including 33 kV lines at N.P. Kunta site of Ananthapuramu Ultra Mega Solar Park (1500 MW) and 2 Nos. 220/33kV Pooling Sub Stations-1&2 & associated 220kV DC lines including 33 kV lines at Talarichervu site of Ananthapuramu-II Ultra Mega Solar Park (500 MW), Ananthapuramu District, Andhra Pradesh for a period of 1 year.

2. **Registration:**

- i) The firm should have “A” Grade Electrical Licence
- ii) The firm should have valid labour license.
- iii) The Bidder should be registered in ESI & EPF authority (submit copy of Registration Certificate).
- iv) Registration under process is not acceptable.

3. **Experience:**

- i) The bidder should have carried out operation & maintenance of 220kV Sub-Station and 220 kV transmission lines for a minimum period of one year during the last five financial years.
- ii) The bidder should have carried out operation & maintenance of at least 1 No. 220kV Sub-Station in any one year during the last five financial years.
- iii) The bidder should have carried out operation & maintenance of 220 kV transmission lines with a minimum length of 5 km in any one year during the last five financial years.
- iv) The bidder should have experience in preventive and breakdown maintenance of 220kV substation and associated 220 kV transmission lines.
- v) The bidder shall have all the above experience and the experience in supply of manpower/assistance for operation & maintenance of substations and transmission lines alone are not eligible for quoting the tender.
- vi) The firm shall enclose P.O./Work order and completion certificate from the client clearly stating the above experience.

4. **Financial Requirement:**

**Liquid asset/credit facilities/Solvency certificate** (not older than 12 months from the date of availability of tender specification on e-procurement platform) issued by any Indian Nationalized Bank or scheduled bank of value not less than 1/4<sup>th</sup> of estimated contract value (i.e., Rs. 82 Lakhs approx.).

5. **Annual Turnover:**

The bidder should have aggregate turnover of 3 times of estimated contract value (i.e., Rs. 10 Crores approx) during last three preceding financial years put together i.e. from FY 2018-19 to FY 2020-2021. The bidder shall submit annual turnover certificate duly certified by Chartered Accountant (CA).

6. **General Terms & Conditions:**

*To qualify for consideration of award of contract, each tenderer should fulfill the following criteria.*

- i) The details and certificates are to be furnished as per the NIT and tender specification.
  - ii) The bidder is subject to disqualification and liable for black listing and forfeiture of EMD if he is found to have misled or furnished false information in the forms/statements/certificates submitted in proof of qualification requirements.
  - iii) Even while execution of work, if found that the contractor had produced false/fake certificates of experience he will be liable for black listing and the contract will be liable for termination and liable for forfeiture of EMD and all the amounts due to him.
6. The bidders shall furnish copies of work experience certificates (copies of purchase orders are not acceptable), copy of solvency certificate (not older than 12 months from the date of availability of tender specification on e-procurement platform) from any Indian Nationalized Bank or Scheduled Bank and other relevant particulars. The tenderer shall also furnish copies of certificates of Registration of EPF, Income Tax and GST etc. All the certificates/enclosures shall be attested by a Gazetted officer. No statements to the affect that they will be collaborating (or) forming consortium with some experienced firm will be accepted.
  7. **APSPCL does not entertain any request for advance payment for the work.**
  8. In opening the tenders, the Part-I i.e. Pre-qualification Bid will be opened first. Only those tenders which contain the full information and which comply with the requirements regarding technical and financial qualifications, experience and equipment etc will qualify for opening of Part-II i.e. Price Bid. **In this regard, the decision of APSPCL is final.**
  9. The percentage on ECV quoted by the tenderer in Part -II i.e. Price Bid shall be firm till completion of work.
  10. Part-II i.e. Price Bid, in respect of qualified tenderers only will be opened on the dates notified.
  11. The bidders should invariably upload the statement showing the list of documents etc, in the “e” market place in support of their Technical bids. The bidder should upload scanned copies of all relevant certificates. The bidder shall sign on all the statements, documents, certificates, uploaded by him, owning responsibility for their correctness/authenticity. **The Department shall carry out the technical bid evaluation solely based on the uploaded documents, online payment receipt towards EMD in the e-procurement system and open the price bids of the responsive bidders.** The Department will notify the successful bidder for submission of original hard copies of all uploaded documents prior to issue of LOI.

## **TENDER FORM**

**To**  
**The Managing Director,**  
**APSPCL, Tadepalli,**  
**Guntur Dist. – 522501.**

Sir,

I/We do hereby tender and, if this tender be accepted undertake to execute the work of APSPCL –Carrying out Operation and Maintenance of 2 No. 220/33 kV Pooling Sub Station-3&4 and associated 220 kV DC lines including 33 kV lines at N.P. Kunta site of Ananthapuramu Ultra Mega Solar Park (1500 MW) and 2 Nos. 220/33kV Pooling Sub Stations-1&2 & associated 220kV DC lines including 33 kV lines at Talarichervu site of Ananthapuramu-II Ultra Mega Solar Park (500 MW), Ananthapuramu District, Andhra Pradesh for a period of 1 year. as described in the specifications deposited in the office of the Superintending Engineer/ Civil/ APSPCL, Tadepalli, Guntur Dist, A.P - 522501 with such variations by way of, alterations or additions to, and omissions from the said work and method of payment as are provided for in the “Conditions of Contract” at the estimated contract value (ECV) PLUS (or) MINUS % or such other sum as may be arrived at under the clause of the standard preliminary specification relating to “Payment on lump sum basis or final measurements at unit prices”.

I/We agree to execute the work when the lump sum payment under the terms of agreement is varied by payment on measurement quantities.

I/We agree to keep the offer in this tender valid for a period of 180 days from the date of opening of tender and not to modify the whole or any part of it for any reason within the above period. If the tender is withdrawn by me/us for any reason whatsoever, within the validity period, the earnest money deposited by me/us will be forfeited to APSPCL.

I/We hereby distinctly and expressly declare and acknowledge that before the submission of my/our tender, I/We have carefully followed the instructions in the tender notice and have read the APSS and the Preliminary specifications therein and the APSS Addenda volume; and that I/We have made such examination of the contract documents and of the plan, specifications and quantities, and of the locations where the said work is to be done, and such investigation of the work required to be done, and in regard to the materials required to be furnished so as to enable me/us to thoroughly understand the intention of the same and the requirements, covenants, agreements, stipulations and restrictions contained in the contract and in the said plans and specifications and distinctly agree that I/We will not hereafter make any claim or demand upon the APSPCL based upon or arising out of any alleged misunderstanding or misconception or mistake on my/our part of the said requirements, covenants, agreements, stipulations restrictions and conditions.

If my/our tender is accepted, the earnest money shall be retained by the APSPCL as security for the due fulfillment of this contract. If upon written intimation to me/us by the Executive Engineer/Tech/APSPCL/Tadepalli/Guntur Dist., I/We fail to attend the said office before the end of the period specified on such intimation the tender will not be considered and if, upon intimation being given to me/us by the Executive Engineer/Tech/APSPCL/Tadepalli/Guntur Dist. of acceptance of my/our tender, I/We fail to enter into the required agreement as defined **in clause 5 of the detailed tender conditions**, then I/We agree to the forfeiture of the

Earnest money; Any notice required to be served on me/us here under shall be sufficiently served on me/us personally or forwarded to me/us by post (registered or ordinary) or left at my/our address given herein. Such notice if sent by post be deemed to have been served on me/us at the time when in due course of post, it would have been delivered at the address to which it was sent.

I/We fully understand that the written agreement to be entered into between me/us and the APSPCL shall be the foundation of the rights of both of the parties and the contract shall not be deemed to be completed until the agreement has first been signed by me/us and then by proper officer authorized to enter into contracts on behalf of APSPCL.

Signature of Contractor  
With Rubber Seal

## DETAILED TENDER NOTICE

1. Tenders in two parts (Part I & II) for the work of “APSPCL –Carrying out Operation and Maintenance of 2 No. 220/33 kV Pooling Sub Station-3&4 and associated 220 kV DC lines including 33 kV lines at N.P. Kunta site of Ananthapuramu Ultra Mega Solar Park (1500 MW) and 2 Nos. 220/33kV Pooling Sub Stations-1&2 & associated 220kV DC lines including 33 kV lines at Talarichervu site of Ananthapuramu-II Ultra Mega Solar Park (500 MW), Ananthapuramu District, Andhra Pradesh for a period of 1 year. ” should be in the prescribed form which can be obtained from ‘e’ procurement platform from the date of electronic publication up to the time and date indicated in the tender notice. The intending bidders shall enroll themselves on the ‘e’ procurement market-place [www.apecprocurement.gov.in](http://www.apecprocurement.gov.in). Those contractors who register themselves in the ‘e’ procurement market place can download the tender schedules free of cost. The bidder shall authenticate the bid with his digital certificate for submitting the bid electronically on e- procurement platform and the bids not authenticated by digital certificate of the bidder will not be accepted on the e-procurement platform following the G.O.Ms.No.6, I.T&C Department, dated. 28.02.2005.

The intending bidders can download tender specification and submit their tenders online at e-procurement market place viz., [www.apecprocurement.gov.in](http://www.apecprocurement.gov.in). **The tender forms can be downloaded up to 4.00 PM on 13.04.2022. Bids can be submitted up to 5.00 PM on 13.04.2022 as per NIT.**

The Pre-qualification Bids will be opened through e-procurement platform by the *Executive Engineer/Tech/APSPCL/Tadepalli/Guntur Dist.* on **18.04.2022 from 3.00 P.M. onwards as per NIT** in his chambers at the address Flat No. 401, 4<sup>th</sup> Floor, Garuda Enclave, Beside T.G Plaza, Tadepalli, Guntur Dist, A.P – 522501 and the Price Bids will be opened on **19.04.2022 from 11.00 A.M. onwards as per NIT** in his chambers at the address: Flat No. 401, 4<sup>th</sup> Floor, Garuda Enclave, Beside T.G Plaza, Tadepalli, Guntur Dist, A.P - 522501. If the tender opening day happens to be a holiday the tenders will be opened at the same timings mentioned above on the next working day. The tenderers or their authorized agents are expected to be present at the time of opening of tenders.

Intending bidders can contact office of the *Executive Engineer/Tech/APSPCL/Tadepalli/Guntur Dist.* for any clarification/ information on any working day during working hours

The bidders who are desirous of participating in e- procurement shall submit their Technical bid/Price bid etc., in the standard formats prescribed in the tender documents, displayed at “e” market place. The bidders should invariably upload the statement showing the list of documents etc., in the “e” market place in support of their Technical bids. The bidder should load scanned copies of all relevant certificates. The bidder shall sign on all the statements, documents, certificates, uploaded by him, owning responsibility for their correctness/authenticity. **Responsibility for correctness of the information submitted in the online bid lies with bidder. If any information furnished in the bid is proved to be false at a later date, the bid will not only be rejected but the bidder will be BLACKLISTED.**

The Bidder shall authenticate the bid with his digital certificate for submitting the bid electronically on e-Procurement Platform and the bids not authenticated by Digital certificate of the bidder will not be accepted on the e-Procurement platform.

The Department shall carry out the technical bid evaluation solely based on the uploaded documents, Online payment receipt towards EMD in the e-procurement system and open the price bids of the responsive bidders.

The Department will notify the successful bidder for submission of original hard copies of all uploaded documents prior to issue of LOI.

The successful bidder shall invariably furnish the original Certificates documents of the uploaded scanned copies to the Tender Inviting Authority before issue of LOI either personally or through courier or post and the receipt of the same within the stipulated date shall be the responsibility of the successful bidder. The Department will not take any responsibility for any delay in receipt/non-receipt of original certificates/documents from successful bidder before the stipulated time. On receipt of documents, the Department shall ensure the genuinity of all other certificates documents uploaded by the bidder on e-procurement platform in support of the qualification criteria before issue of LOI.

If any successful bidder fails to submit the original hard copies of uploaded certificates/documents within the stipulated time or if any variation is noticed between the uploaded documents and the hard copies submitted by the bidder, the successful bidder will be suspended from participating in the tenders on e-procurement platform for a period of 3 years.

The e-procurement system would deactivate the user ID of such defaulting successful bidder based on the trigger/recommendation by the Tender Inviting Authority in the system. Besides this, the department shall invoke all processes of law including criminal prosecution of such defaulting bidder as an act of extreme of the deterrence to avoid delays in the tender process for execution of the development schemes taken up by the Government.

2. The bidder shall fulfill the following statutory requirements.

a) Income tax Clearance Certificate:

The contractor shall furnish their copy of permanent Account Number (PAN) card and copy of latest income tax returns submitted along with the proof of receipt.

b) Labour Rules and Regulations:

The contractor shall comply with all statutory labour rules and regulations for EPF, GIS/ESI, Labour cess, Contract labour rules, Workmen compensation etc., as may be applicable.

c) Goods and Services Tax:



The tenderer should have registration under GST in the state of Andhra Pradesh from concerned department for payment of bills.

3. All the bidders shall upload the scanned copies of the following documents on e-procurement system.

- 1) Online Payment for EMD amount - This will be the primary requirement to consider the bid responsive. – Mandatory.
- 2) The firm should have “A” Grade Electrical License - Mandatory
- 3) The firm should have valid labour license – Mandatory.
- 4) The Bidder should be registered with ESI & EPF authority (submit copy of Registration Certificate) – Mandatory.
- 5) The bidder should have carried out operation & maintenance of 220kV Sub-Station and 220 kV transmission lines for a minimum period of one year during the last five financial years – Mandatory
- 6) The bidder should have carried out operation & maintenance of at least 1 No. 220kV Sub-Station in any one year during the last five financial years – Mandatory
- 7) The bidder should have carried out operation & maintenance of 220 kV transmission lines with a minimum length of 5 km in any one year during the last five financial years. – Mandatory
- 8) The bidder should have experience in preventive and breakdown maintenance of 220kV substation and associated 220 kV transmission lines. – Mandatory
- 9) The bidder shall have all the above experience and the experience in supply of only manpower/assistance for operation & maintenance of substations and transmission lines are not eligible for quoting the tender. - Mandatory
- 10) The firm shall enclose P.O./Work order and completion certificate from the client clearly stating the above experience. – Mandatory

**11) Financial Requirement:**

**Liquid asset/credit facilities/Solvency certificate** (not older than 12 months from the date of availability of tender specification on e-procurement platform) issued by any Indian Nationalized Bank or scheduled bank of value not less than 1/4<sup>th</sup> of estimated contract value (i.e., Rs. 82 Lakhs approx.). – Mandatory.

**12) Annual Turnover:**

The bidder should have aggregate turnover of 3 times of estimated contract value (i.e., Rs. 10 Crores approx) during last three preceding financial years put together i.e. from FY 2018-19 to FY 2020-21. The bidder shall submit annual turnover certificate duly certified by Chartered Accountant (CA). – Mandatory.

**Other Documents to be uploaded:**

- 1) Income tax returns for the last three years
- 2) Copy of PAN
- 3) Copy of GST Registration

Bid evaluation of the tenders would be done based on the certificates/ documents uploaded towards qualification criteria furnished by him/them.

In case of proprietary or partnership firm, it will be necessary to produce the certificates afore mentioned for the proprietor or proprietors and for each of the partners, as the case may be.

4. Earnest Money Deposit:

Each bidder must pay Bid Security i.e. Earnest Money Deposit of Rs.3,29,781/- @ 1% of ECV (Rupees Three Lakh Twenty Nine Thousand Seven Hundred and Eighty One Only) while submitting their bids. The EMD shall be paid by way of online payment through e-procurement portal. While furnishing the bids online, the bidders have to furnish a soft copy of the payment receipt.

5. When a tender is to be accepted, the tenderer whose tender is under consideration shall attend the office of the Executive Engineer/Tech/APSPCL/Tadepalli/Guntur Dist. before the end of the period specified by written intimation to him. If the tenderer fails to attend the office before the end of the period specified, his tender will not be considered. He shall attend the office of the Executive Engineer/Tech/APSPCL/Tadepalli/Guntur Dist. immediately after intimation by the Executive Engineer/Tech/ APSPCL/ Tadepalli/ Guntur Dist. about acceptance of his tender and sign an agreement in the proper departmental form for the due fulfillment of the contract. The contractor is bound by the specifications of APSS.

- 5.1 Failure to enter into the required agreement as defined in the above paragraphs shall entail forfeiture of the earnest money deposit. The written agreement to be entered into between the contractor and the APSPCL shall be the foundation of the rights of both the parties and the contract shall not be deemed to be complete until the agreement has first been signed by the contractor and then by the proper officer authorized to enter into contracts on behalf of APSPCL.

- 5.2 The work shall be commenced from the dates specified by APSPCL, otherwise EMD will be forfeited.

**If the successful tenderer fails to sign the agreement or otherwise commit default, the APSPCL shall have the right to recover damages according to law apart from forfeiting the earnest money deposit.**

6. The tenderer shall examine closely the APSS and also the standard preliminary specifications contained therein and sign the divisional office copy of the APSS and its addenda volume in token of such study before submitting his tender offer. He shall also carefully study the drawings and additional specifications and all the documents which

form part of the agreement to be entered into by the accepted tenderer. The APSS and other documents connected with the contract such as specifications, plans, descriptive specification sheet regarding materials etc., can be seen at any time between 11.00 A.M. and 5.00 P.M. on all working days in the office of the Executive Engineer/Tech/APSPCL/Tadepalli/Guntur Dist-522501.

7. Every tenderer is expected, before quoting his **percentage less/excess on ECV value on the estimated rates**, to inspect the site of the proposed work.
8. **The bidder has to furnish his overall percentage either '+' or '-' i.e. excess or less on ECV Value.**
9. No alteration which is made by the tenderer in the contract form, the conditions of contract, drawings, specifications or quantities accompanying the tender will be recognized and if any alterations are made, the tender will be considered void.
10. The tenderer should work out his own overall percentage either '+' or '-' i.e., excess or less on ECV value.
11. **Price Variation: No price variation will be allowed for materials and labour. The excess or less percentage over the Estimated Contract Value (ECV) quoted by the contractor shall be firm and binding upon the contractor till the work is completed. The quoted percentage less/excess on ECV value shall be binding on the tenderer even for award of part work.**
12. **Period of contract: 1 Year**
13. The **Executive Engineer/Tech/APSPCL** or other sanctioning authority reserves the right to reject any tender in full or part or all the tenders without assigning any reason there for. The quoted percentage shall be binding on the tenderer even if the **Executive Engineer/Tech/APSPCL** awards part of the work.
14. A tenderer submitting a quotation which the tender accepting authority considers excessive and/or indicative of the insufficient knowledge of current prices or definite attempt at profiteering will render himself liable to be debarred permanently from tendering or for such periods as the tender accepting authority may decide.
15. The form of contract will be lump sum.
16. The tender shall be valid for acceptance for a period of not less than 180 days from the date of opening the tenders. Tenders with a validity period of less than 180 days are liable to be rejected.
17. **Supplemental Items:**  
The contractor is bound to execute all supplemental items beyond 10% of agreement quantity, deducible from similar items in the original agreement and new items that are found essential, incidental and inevitable during execution of main works. The rate shall be estimate rate plus or minus overall tender percentage.

The term estimate rate means the rate in the sanctioned estimate with which the tenders were compared or if no such rate is available in the estimate, the rate derived with reference to the schedule of rates adopted in the sanctioned estimate with which tenders are compared.

18. The contract is liable for cancellation if either the contractor himself or any of his employee is found to be a Gazetted officer of the Government or APGENCO/APSPCL, who retired from service and had not obtained the permission from the Government or APGENCO/APSPCL for accepting the contract or employment within a period of 1 years from the date of his retirement.
19. The contractor will at all times duly observe the provisions of employment of Children Act XXVI of 1938 and any re-enactment or modification of the same and will not employ or permit any persons to do any work for the purpose or under the provisions of the said act. The Contractor shall agree to indemnify the APSPCL from and against all claims/penalties which may be suffered by the APSPCL or any person employed by the Department by reason of any default on the part of the Contractor in the observance and performance of the provisions of the Employment of Children Act, XXVI of 1938, or any re-enactment or modification of the same.
20. The contractor shall indemnify the APSPCL against all claims which may be made under the Workmen's Compensation Act or any statutory modification thereof or rules there under or otherwise for or in respect of any damage or compensation payable in consequence of any accident or injury sustained by any workmen engaged in the performance of the business relating to this contract.

In all cases of personal injury to workmen employed by a contractor on this work for which the contractor is liable to pay compensation under the 'Workmen's Compensation Act', he shall pay the prescribed medical fee to the Medical Officer for issue of 'C' & 'D' forms as prescribed, failing which they said fee will be paid to the Medical Officer by the Department and recovery effected from the contractor's bills.

21. Preliminary specifications of APSS except clause 73 shall apply to all agreements entered by the contractor with APSPCL and shall form an inseparable condition of the contract. The tenderer is expected to examine closely the relevant specifications of the APSS and the special specifications and ISS before submitting his tender offer.
22. Scaffolding and gangways will have to be arranged by the contractor at his own cost, whenever they are considered desirable or necessary by the Executive Engineer/ Engineer-in-Charge of the work to facilitate the work.
23. The tender offer shall be based on the assumption that contractor will procure all the machinery and equipment required for the execution of the work.
24. Necessary arrangements have to be made by the contractor at his own expense towards hutting, accommodation, drinking water supply, health and sanitary arrangements and other amenities for the workers required as per the relevant rules and to the satisfaction of the Public Health authorities and the Executive Engineer / Engineer-in-Charge and land required for the purpose will have to be provided by the contractor at his cost.

25. The successful bidder shall invariably furnish the original B.G. towards EMD, Certificates/documents of the uploaded scanned copies to the Tender Inviting Authority before issue of LOI either personally or through courier or post and the receipt of the same within the stipulated date shall be the responsibility of the successful bidder. The Department will not take any responsibility for any delay in receipt/non-receipt of original B.G towards EMD, certificates/ documents, from successful bidder before the stipulated time. On receipt of documents, the Department shall ensure the genuineness of the B.G towards EMD and all other certificates documents uploaded by the bidder in e-procurement system in support of the qualification criteria before issue of LOI.
26. All correspondence after opening of the tender shall be made with the Executive Engineer/Tech/ APSPCL, Flat No. 401, 4<sup>th</sup> Floor, Garuda Enclave, Beside T.G Plaza, Tadepalli, Guntur Dist, A.P - 522501.

### **TENDERER'S AND CONTRACTOR'S CERTIFICATE**

- a) We expressly state that we will be bound by the conditions of PS to APSS and that the contract shall be deemed to be concluded on the receipt of letter of acceptance. If thereafter we do not sign the contract or otherwise commit default, the APSPCL will be at liberty to forfeit the earnest money and recover damages in accordance with law.
- b) We hereby declare that we have perused in detail and examined closely in the APSS all clauses of preliminary specifications and have either examined all the standard specifications for items for which we tender, before we submit such tender and we agree to be bound by and comply with all such specifications for all agreements which we shall execute in the APSPCL. We have signed here below in acknowledgement thereof.
- c) We certify that we have inspected the location of the proposed work before quoting our percentage.
- d) We are prepared to furnish detailed data in support of all our quoted percentage, when called upon to do so without any reservations.

#### **Signature of Tenderer/contractor**

Name : \_\_\_\_\_

Designation : \_\_\_\_\_

Company : \_\_\_\_\_

Date : \_\_\_\_\_

**Seal of Company**

## **SECTION - I**

### **SUPPLEMENTAL CONDITIONS TO THE PRELIMINARY SPECIFICATIONS TO THE APSS**

The following conditions shall also be followed in addition to those mentioned in P.S. to the A.P.S.S.

#### **1. Functioning of the Contract**

The contractor shall carryout all directions and orders issued by the Executive Engineer / Engineer-in-charge connected with the work and shall communicate with him regarding all matters pertaining to the contract.

#### **2. Contract Includes All Necessary Operations**

The contractor is to include the whole of works whether permanent or temporary which are described in or implied by the contract documents, which may be inferred to be obviously necessary for the efficiency, stability and completion of the permanent works, also the performance of all other operations and the supplying of all materials and things described in or implied by the contract documents which may be deemed desirable or required for the completion in all respects of the above works to the entire satisfaction of the Executive Engineer / Engineer-in-charge and all such matters shall be deemed to be included in the contract.

#### **3. Other Contracts for the Work:**

Should the APSPCL enter into other contracts for specified items of the corporate work, each contractor shall co-operate with others to the fullest extent and shall allow each other every facility and co-ordination for execution of their works simultaneously and satisfactorily as intended in the designs, specifications and drawings. Should there be dispute or disagreement between the contractors for any cause whatsoever, the same shall be referred to the Executive Engineer / Engineer-in-charge whose decision regarding the co-ordination, co-operation, and facilities to be provided by any of the contractors to the others shall be final and binding on all parties and such a decision shall not vitiate any contract nor absolve the contractor of his responsibilities under the contract.

#### **4. Protection of Works**

The contractor shall during the progress of work properly cover up and protect the work and plant and materials placed at his disposal or acquired for him by the APSPCL, from injury by exposure to the weather and shall take every responsible, proper and timely precautions against accident or injury to the same from any cause and shall be and remain answerable and deemed liable for all accidents or injuries thereto until the same be or deemed to be taken over by the APSPCL, such damages or injuries, which may arise or occasioned by the acts or omissions of the contractor or his workmen or sub-contractors and all losses and damages to the works or such plant and materials arising from such accidents or injuries as aforesaid shall be made good in the most

complete and substantial manner by and at the sole cost of the contractor and to the satisfaction of the Executive Engineer / Engineer – in – charge.

If the Executive Engineer / Engineer-In-Charge considers that the work or materials or plant advanced by the APSPCL is not sufficiently protected by the contractor he shall be entitled to arrange for such protection at his discretion and recover the cost thereof from the contractor.

## **5. Materials, Tools and Plant Brought on to the Site of Work**

All the materials, tools and plants of the contractor brought to and delivered upon the site for purpose of this work shall, from the time of their being so brought, be deemed to be in the possession of APSPCL to be used for that purpose only and shall not on any account be removed or taken away by the contractor or any other person without the express permission in writing of the Executive Engineer / Engineer – in – charge, but the contractor shall nevertheless be solely liable and responsible for any loss or destruction thereof or damage thereto.

## **6. Personnel of the Contractor**

- a) The contractor shall, at all times, maintain on the work staff of qualified engineers and Supervisors of sufficient experience of similar other jobs to assure that the quality of work turned out shall be as intended in these specifications and they shall be present at the work spot during working hours and at the times of inspection by the departmental officers, all orders and directions given to such supervision or other staff of the contractor shall be deemed to have been given to the contractor. Further, the Executive Engineer / Engineer–in–charge may, by due notice, desire a higher ranking member of the supervisory staff of the contractor to be present and the contractor shall comply with such requisitions. The contractor shall also maintain at the work, works manager of sufficient status and experience and duly authorize him to deal with the aspects of the day to day work. All communications or commitment by this Works Manager shall be considered binding on the contractor.
- b) The contractor shall supply to the Executive Engineer / Engineer–in–charge details of the name, qualifications and experience in regard to all supervisory staff employed by the contractor and notify change when made and satisfy the Executive Engineer/Engineer–in–charge regarding the quality and sufficiency of the staff thus employed.
- c) The Executive Engineer / Engineer–in–charge will have the unquestionable right to ask for change in the quality and number of the contractor’s supervisory staff and to order removal from the work and any connection therewith of any such staff. The contractor shall comply with such orders and effect replacement to the satisfaction of the Executive Engineer / Engineer–in–charge.
- d) The contractor shall not, without written authorization, permit entry on site of work of any person except authorized agents of the APSPCL or the contractor’s staff and labour directly engaged on, in connection with the work.

## **7. Use of Site**

- a) The contractor will be permitted to use the site without any charge and all lands required for the permanent occupation of the works. He will also be allowed during the period of



his contract the use of any other lands in the vicinity of the works as and when the Executive Engineer / Engineer-in-charge may consider such use to be necessary for the bonafide purpose of the works subject to availability. The contractor shall not commence any operation on such lands except with prior approval of the Executive Engineer / Engineer-in-charge.

- b) All areas of operation including those for his staff and labour colonies, handed over to the contractor shall be cleared and handed over back in good condition to the Executive Engineer/ Engineer-in-Charge, except areas under works constructed as per this contract or those for which specific approval has been obtained from the Executive Engineer. The contractor shall make good to the satisfaction of the Executive Engineer any damage or alterations made to areas which he has to hand over back or to other property or land handed over to him for purposes of this work.
- c) Temporary structures may be erected by the contractor for storage sheds, offices etc. for non-commercial use on the land handed over to him at his own expense and with the permission of the Executive Engineer as regards thereto. At the conclusion of the work, the structures should be dismantled and the site cleared and handed over to the department.

d) **Accommodation:**

For use of contractor and his employees, the contractor shall have to provide for safe and healthy accommodation, water supply, drainage and other facilities for himself and his employees at his own cost. The department will as far as practicable make available suitable land in the vicinity of the site for such purposes, as herein above mentioned.

In matters of layouts, spacing, water supply, drainage, medical facilities etc., to be provided by the contractor, the contractor shall be bound to carry out the instructions of the Executive Engineer / Engineer-in-Charge of the work or the Health Officer as may be issued from time to time.

The contractor shall be responsible for maintaining good orders in his camp and on his work and to that he shall employ several officers and watchmen or other persons as required. Unauthorized or undesirable persons shall be excluded from the camp and the work.

If in the opinion of the Executive Engineer/Engineer-in-Charge of the work, any employee or agent of the contractor misbehaves or causes destruction in the execution of the project work or otherwise makes himself un-desirable, the contractor shall on receipt of the instructions to do so, remove him from the premises forthwith.

e) **Temporary structures:**

The contractor shall provide at his own cost all temporary structures, workshops, shelters etc., as may be necessary and maintain them in good and safe condition.

- f) The contractor shall preserve all existing vegetation such as trees on or adjacent to the site which does not interfere with the construction as determined by the Executive Engineer/Engineer-in-Charge. The contractor shall take all possible precautions in felling trees authorized for removal to avoid any unnecessary damage to vegetation and trees not

to be felled and to structures under construction or to workmen and shall be responsible for any damage if it occurs in such operation.

- g) All produce from cutting of trees shall be the property of APSPCL/Government and shall be stacked and placed at the place specified by the Executive Engineer/Engineer-in-Charge. No claim shall be made for such cutting and stacking of trees by the contractor.
- h) The contractor shall not unnecessarily or for use of fuel cut any trees, brush wood, grass or other vegetation or shall set fire thereto without the written permission of the Executive Engineer / Engineer-in-Charge. When such permission has been given, the contractor shall take necessary measures to prevent damage and preventing of fire spreading to surrounding property and shall be responsible for any such damage if caused.
- i) Any standing trees or other materials which the contractor may have to remove to clear the lands shall be removed as directed by the Executive Engineer / Engineer-in-Charge and handed over to the Executive Engineer / Engineer-in-Charge in neat sizeable stocks at the boundaries of the areas or as may be directed by the Executive Engineer / Engineer-in-Charge.
- j) The lands shall be, herein before mentioned, handed over to the Executive Engineer / Engineer-in-Charge after the completion of the work under this contract. Also no land shall be held by the contractor longer than the Executive Engineer/Engineer-in-Charge shall deem necessary and vacate and return the land which the Executive Engineer may certify as no longer required by the Contractor, for purpose of the work.

## **8. Safety Measures**

The contractors shall take all necessary precautions for the safety of workers and in preserving their health while working in such jobs that may require special protection and preventive steps. The following are some of the measures listed but the same are not exhaustive and the contractor shall add to and augment these precautions on his own initiative where necessary and shall comply with the directions issued by the Executive Engineer / Engineer-in-Charge in this regard from time to time, and at all times.

- 1. All personals engaged for this job shall wear Safety Helmet & safety shoes.
- 2. Appropriate Hand Gloves shall be used for Materials handling, Welding, Grinding, Gas cutting, Chemical Handling & Electrical work.
- 3. Suitable goggles must be ensured for the personnel deployed for Welding, Gas Cutting Chipping etc Grinders shall use face shield.
- 4. All personal working over 2.0-meter height shall wear full body safety harness with double lanyard and scaffold hook, before climbing. Further he will have to anchor the safety harness to a fixed structure before starting the work at a height, Fall Arrest Devices will be used in conjunction with safety harness, wherever the requirement arises.
- 5. Smoking is prohibited in all restricted area except in authorized smoking areas/ shelters.
- 6. Horseplay is prohibited at workplace. Running at the site is prohibited, except in case of emergency.
- 7. Material shall not be thrown from the height. It should be lowered using suitable appliances from height.

8. Other than the electricians, no one is allowed to carry-out electrical connections, repairs on electrical equipment or other jobs related thereto.
9. Inserting of bare wires for tapping the power from electrical sockets is completely prohibited.
10. Electrical supply to portable equipments should be through Earth leakage circuit breaker (ELCB) of 30 milliamps sensitivity.
11. All major /minor accidents and near misses to be reported to Site in charge / Site Safety Engineer to enable the management to take necessary steps to avoid the recurrence.
12. All tools and tackles shall be inspected before use. Defects to be reported immediately. No lifting tackle to be used unless it is certified by a competent person/ Safety Engineer.
13. Workers should possess induction tester. Whenever a shutdown is taken this device should be used to ensure no current is on the conductor.
14. Move carefully when walking or climbing.
15. Keep the working area as neat as possible.
16. Remove hazards as soon as they are noticed

## **9. Patent Right**

In the event of any claim or demand being made or action being brought against the APSPCL for infringement of letter of patent, registration or design or trade mark in respect of any machine, plant, materials or a method of using or working by the APSPCL of such machine, plant, materials or things belonging to the contractor, he shall indemnify the APSPCL against all costs and expenses arising from or incurred by reason of any such claim provided that the APSPCL shall notify the contractor immediately after any claim is made, and that the contractor shall be at liberty, if he so desires with the assistance of the APSPCL if required but at the contractor's expense, to conduct all negotiation for the settlement of the same or any litigation that may arise there from and provided that no such machine, plant, materials or things shall be used by the APSPCL for any purpose or any manner other than that for which they have been supplied by the contractor and specified under this contract.

## **10. Extra Items**

The contractor shall submit in writing, to the Executive Engineer / Engineer-in-Charge a statement of extra items, if any, that he may have executed failing which the contractor shall not be entitled to claim any payment.

## **11. Contract Documents And Matters To Be Treated As Confidential**

All documents, correspondence, decisions and other items concerned with the contract shall be considered as confidential and restricted matter by the contractor and he shall not divulge or allow access thereto any unauthorized person.

## **12. Breach On The Part Of APSPCL Not To Annul Contract**

No breach or non-observation on the part of the APSPCL of any of the agreements contained herein shall annul this contract or discharge the contractor from the observance and performance thereof or any part thereof but on application from the

contractor and in the unfettered discretion of the Executive Engineer/Engineer-in-Charge, an extension of time may be given to the contractor in respect of such breach or non-observance by the APSPCL.

### **13. Compensation and Penalty**

All such recoveries from the contractor by way of penalty under any of the conditions of this contract shall be considered as reasonable compensation for the use of the APSPCL without reference to the actual loss or damage sustained.

### **14. Jurisdiction**

For the purpose of this contract, all the transactions shall be deemed to have taken place within the State of Andhra Pradesh and the courts in Andhra Pradesh shall have jurisdiction over the matters arising under or out of this agreement.

### **15. Labour Conditions**

a) The contractor shall comply with the labour rules and regulations that are in force and shall furnish the returns and information as may be specified from time to time.

b) The contractor shall, as far as possible, obtain his requirements of all workers through the nearest employment exchange. No person below the age of 15 years shall be employed as labourer.

c) The contractor shall pay fair and reasonable wages (whether or not such wages are controlled by any laws existing at the time) to the man power employed by him for the work. In the event of any dispute arising between the contractor and his workers on the grounds that the wages paid are not fair and reasonable, the dispute shall, in the absence of legal or other relief to the workers, be referred to the Executive Engineer/Engineer-in-charge who shall decide the same. The decisions of the Executive Engineer/Engineer-in-charge shall be conclusive and binding on the contractors but such decision or any other decision in this behalf that the contractor's workmen may obtain by recourse to law or other legal means available to them shall not, in any way, affect the conditions in the contract, regarding payments to be made by the APSPCL.

d) While employing skilled or un-skilled labourers, the contractor shall give first preference to the persons, certified by the Executive Engineer/Engineer-in-charge or his duly authorized representatives as persons who are adversely affected by this project and shall be bound to pay such persons wages not below the minimum wages fixed by APSPCL in this regard.

e) The contractor shall provide reasonable facilities to the satisfaction of the Executive Engineer/Engineer-in-charge for the labour employed by him where no such natural facilities exist. The usual facilities are weather proof shelters for rests and meals, supply of wholesome drinking water, facilities for women workers, suitable residential accommodation, recreational and cultural activities, general sanitation and health measures etc.

f) The implementation of any or all provisions of this clause shall in no way entitle the contractor to claim any compensation over and above the rates provided in the contract.

g) The contractor shall comply with the statutory labour rules and regulations i.e., EPF, GIS etc., as may be current and shall furnish the returns and information as may be specified from time to time

h) The contractor is deemed to be the principal employer in respect of the contract labour engaged by him in execution of various piece rated works or other wise and contractor shall be responsible to pay both the EPF contributions payable by him as a principal employer and also on behalf of the contract Labour employed to the PF authorities concerned in independent PF account number held by him.

i) It shall be the responsibility of the contractor to remit PF subscription of both on behalf of employer and contract labour engaged and shall submit the returns and maintain all records/registers and meet all other expenses to the EPF authorities, as required under EPF and MP act 1962.

k) The contractor shall produce the copy of independent PF code number, proof of proper insurance policy covering all the labour to the engaged in such work/works to the field officials concerned prior to commencement of work.

l) The bills of the contractors for the works executed will be passed only on receipt of copies of PF remittances made by the contractor to the concerned PF authorities in the independent PF code number held by respective contractors. The copies of insurance premium paid covering the labour engaged by him against each of works contract also shall be produced to field officials concerned enabling them to regulate bills submitted.

#### **16. Construction of the Contract**

The contract shall in all respects be constructed and operated as contract as defined in the Indian Contract Act, 1872 and all payments to be made there under shall be made in 'Rupees' unless otherwise specified.

#### **17. Taxes And Duties Deductable At Source:**

As per the provisions of taxation act, necessary applicable taxes will be deducted at source at all stages of payment on the bills and same will be remitted to the concerned department as per the rules / acts of the State / Central Government. However the deductions will be as per the rates prevailing as on the date of billing.

The prices indicated in Schedule-A are firm and exclusive of GST.

Contractor shall be entirely responsible for payment of all taxes, levies, duties, license fees etc incurred until delivery of the contracted goods to the purchaser. In respect of supply portion, the contractor shall pay all types of fees, levies, taxes, duties etc. required to be paid by any National or State statute, ordinance or other law or any regulation or bye-law of any local or other duly constituted authority in relation to the execution of works and by the rules and regulations of all Public bodies and companies whose property or rights are affected or may be affected in any way of the

works. The contractor shall in compliance with the above keep the Purchaser indemnified against all such penalties and liability of every kind for breach of any statute, ordinance or law, regulation or bye-law. Nothing in the contract shall relieve the contractor from his responsibility to pay any tax that may be levied by the Government on the turnover / profits etc., made by him in respect of the contract.

## **18. Contractor's Risk And Insurance**

Clause 50 of the PS to APSS will be effective subject to the following modifications

The words 'work executed', occurring in line-1 of the above clause will also include 'work under execution'.

## **19. Delays In Commencement or Progress or Neglect of Work And Forfeiture of Earnest Money, Security Deposit And Withheld Amounts**

Clause 60 & 61 of the PS to APSS will remain effective.

## **20. Terms of Payments**

- (a) Payment shall be made on quarterly basis within 30 days from the date of submission of invoice by the Company after successful completion of work by RTGS or a cheque drawn on any Nationalized or scheduled bank payable at Vijayawada.
- (b) The amount payable for three months period shall be one-fourth of annual O&M charges and it will be paid after deducting penalties, if any, as per the terms and conditions of the agreement.

## **21. Recoveries**

Recoveries due from the Contractor shall be made from bills approved for payment every quarter or at other periods, when the bills are prepared for various items in the following order of priorities and extents:

- i) Penalty in full, if levied.
- ii) Expenditure, if any, incurred by the APSPCL on the contractor's behalf on labour or materials in full;
- iii) Hire charges of machinery, if any;
- iv) Other recoveries;
- v) Recovery of advance and secured payments or payments for preliminary works in full or installment due, if the same may have been allowed.

Outstanding recoveries, if any, shall be made from the succeeding bills with the provision that the outstanding payment for any item shall for purpose of recovery, be added to the same item for recovery in the aforesaid succeeding bills.

## **22. Arbitration**

- i) Any dispute or difference arising out of or touching the order based on this specification involving amounts upto Rs.50,000/- shall be decided by Chief

Executive Officer/APSPCL through arbitration.

ii) In case of disputes involving amounts more than Rs.50,000/-, the parties shall approach competent Civil Courts situated in Andhra Pradesh only, if necessary.

**23.** The clause 69 (b) of PS to APSS is deleted. The following may be read in its place:

“Whenever the withheld amount reaches Rs.1,000/- or a multiple thereof, the contractor may, at his option, to deposit with the Engineer-in-charge, an equal amount in sum of Rs.1,000/- or multiples thereof in any of the forms of interest bearing securities recognized for the purpose by A.P. Public Works Accounts Code and subject to the provisions therein contained or a Bank Guarantee of a Nationalised Bank / Scheduled bank in which case the equivalent withheld amount shall be paid to him forthwith.”

The contractor will be permitted to exercise the option in this clause, subject to the condition that the rate of progress contained in the Articles of Agreement is properly maintained.

**24. EPF and GIS:**

The tenderer must possess independent EPF code number. The contractor shall be responsible for payment of all the contributions towards EPF for the workers and staff engaged by the contractor for the work as per the rules applicable. The bills of the contractor for the work executed will be passed by APSPCL only after receipt of the copies of documentary evidence of provident fund remittances made by the contractor against the work under the independent EPF Code number held by him.

The contractor shall also be responsible for payment of all the contributions/remittances towards GIS whichever is applicable, in respect of the workers and staff engaged by the contractor for the work as per the rules applicable. The bills of the contractor for the work executed will be passed by APSPCL only after receipt of the copies of documentary evidence of contributions/remittances towards GIS made by the contractor in respect of the workers and staff engaged by the contractor for the work.

**Note:** In case of contradiction between the clauses included in this specification and the clauses of PS to APSS the former will prevail over the latter and is binding on the tenderer.

## **SECTION - II SITE CONDITIONS**

### **1. Location & General Description**

Anantapuramu Ultra Mega Solar Park (1500 MW) is situated at N.P.Kunta Mandal and Site is about 40 km from Kadiri. The nearest Railway station is Kadiri. Nearest town is Kadiri. The project information and data is given below:

- |      |  |   |   |
|------|--|---|---|
| 1.01 | Owner / Purchaser  | : | Andhra Pradesh Solar Power Corporation Pvt Limited (A JV Company of Govt of Andhra Pradesh and Govt of India) |
| 1.02 | Project Title  | : | Ananthapuramu Ultra Mega Solar Park (1500 MW) - N.P.Kunta Mandal.   |
| 1.03 | Nearest Railway Station  | : | Kadiri (40 KM from site)  |
| 1.04 | Name of Railway  | : | South Central Railway   |
| 1.05 | Nearest Airport  | : | Bangalore (181 KM from site)  |
| 1.06 | Altitude   | : | (+) 430 m EL above mean sea level   |
| 1.07 | Climate  | : | Tropical-Hot-Humid  |
| 1.08 | <b>Ambient Temperature (Dry Bulb)</b>                              |   |   |
|      | a) Daily maximum (Mean)  | : | 33.0 Deg. C   |
|      | b) Daily minimum (Mean)  | : | 25.0 Deg. C   |
| 1.09 | <b>Relative Humidity</b>   |   |   |
|      | a) Maximum Humidity  | : | 64 percent  |
|      | b) Minimum Humidity  | : | 35 percent  |
|      | c) Average Humidity  | : | 49 percent  |
| 1.10 | <b>Rainfall</b>  |   |   |
|      | a) Maximum intensity   | : | 60 mm per Hour  |
|      | b) Annual Average  | : | 560 mm  |
|      | c) Tropical monsoon  | : | June to October   |
| 1.11 | <b>Wind Velocity &amp; Pressure</b> (As per IS: 875-1987 Part III) |   |   |
|      | Basic Wind Speed   | : | 20 m/sec  |
| 1.12 | Seismic Zone   | : | Zone II as per IS: 1893-2002  |
| 1.13 | <b>Transport</b>   |   |   |
|      | a) Name of highway near which the plant is located                 | : | Ananthapuramu – Chennai High way  |
|      | b) Railway (Gauge)   | : | Broad Gauge.  |

### **2. Site Conditions**

Before submitting the tender, the tenderer shall familiarize himself with the site conditions.



## **SPECIAL CONDITIONS OF CONTRACT**

### **General**

- 1.1 The word 'Special Conditions' shall be understood to cover all elements effective in determining unit prices such as availability of man power, price of materials, quantity and quality of available labour and their cost, or every other factor whatsoever, of major or secondary importance which has to be accounted for in quoting prices.

- 1.2 For the work covered by the Technical Specifications (Section IV) the bidder shall quote his percentage less/excess on ECV value in words and figures.

Said percentage less/excess on ECV value shall bind on the bidders and shall include any expense whatsoever in connection with the delivery of materials at field site, the use of tools and equipment, cost of technical staff and labour and every other charge connected with and incidental to the complete and through execution of work.

- 1.3 The bidder shall make at his own risk and cost, before submitting his tender, all surveys he might consider necessary and he may carry out any market survey or technical enquiry he might require to check the site conditions. Permission to visit site will be granted to those bidders who have purchased the tender documents.

1.4 **Technical Specifications**

Technical specifications for major items are described in Section III of this document. For those items which may not be covered under Section III, the contractors shall follow the relevant Indian Standard Specifications (latest edition) with the approval of the Executive Engineer /Engineer-in-Charge.

1.5 **Special Notes**

The contractor shall be responsible for any delay and damage except due to force majeure reasons which are generally beyond their control and for this full justification elaborating such circumstances shall be furnished by them.

- 1.6 The contractor shall be under no liability whatsoever for damage or destruction to the work or temporary work or materials and equipment or to property or like which is due to acts of God, earthquake, lightening, gale, typhoon, storm, hurricane, or act of any Government or Strikes or Lockouts or converted action of workmen or civil war (Whether declared or not) or sabotage explosion, Civil commotion, Police action, revolution, epidemics etc., destructive artesian conditions, nuclear fusion, or Radioactive disturbances etc., which they have no control and directly or indirectly affecting the operation of the contract.

- 1.7 The contractor has to provide insulation for all electrical cables if found necessary.

- 1.8 The contractor shall quote percentage less/excess on ECV value in the tender schedules.

- 1.9 The percentage less/excess on ECV value quoted for subject work shall be excluding GST. APSPCL will not reimburse any excess payment made by the contractor for GST due to misinterpretation of law or any other reason.
- 1.10 GST applicable as on date will be paid extra on submission of GST invoice. The responsibility of payment of GST will be rests with contractor. The tenderer should also furnish the proof of registration under GST in the state of Andhra Pradesh.
- 2.0 Tenders quoted abnormally less i.e. more than 15%, a B.G. obtained in favour Managing Director/APSPCL on the State Bank of India / Andhra Bank or any Nationalized Bank / Scheduled bank payable at Vijayawada for the difference between the tendered amount and 85% of the estimate value shall be furnished by the contractor invariably as additional security deposit. The period of validity of B.G shall be for a minimum period of six months. This B.G. shall not bear any interest. On successful completion of the work, the B.G. will be returned to the contractor. The period of validity shall be extended by the contractor from time to time till the B.G. is returned.

In case of contractors failing to complete the work at agreement rates, the B.G. furnished will be forfeited by the APSPCL.

## **GENERAL CONDITIONS OF CONTRACT**

In these general conditions of contract the following terms shall have the meanings assigned to them except where the context otherwise required.

### **1. Definition & Interpretations**

- 1.1 “OWNER/CORPORATION means Andhra Pradesh Solar Power Corporation Pvt., Limited (A J V Company Of Govt., Of Andhra Pradesh And Govt., Of India) and shall include their legal representative, successors and permitted assignees.
- 1.2 The “Contractor“ means the individual or firm or company whether incorporated or not, under taking for execution of works and shall include legal representatives of such individual or persons composing such firms or unincorporated company successors of such firms or company as the case may be, and permitted assignees of such individual or firm or company.
- 1.3 “Contract” means the notice inviting tender, the tender and acceptance thereof and the formal agreement, if any, executed between Andhra Pradesh Solar Power Corporation Pvt., Limited and the contractor together with the documents referred to therein including those conditions with appendices and any special conditions, the specifications, designs, drawings, schedule of quantities with rates and amounts and schedule of rates. All these documents taken together shall be deemed to form one contract and shall be complementary to one another.
- 1.4 The “Engineer-in-charge” means the engineering officer appointed by the corporation or his duly authorized representative who shall direct, supervise and be in charge of the works for the purpose of this contract.
- 1.5 “Work” means the works to be executed in accordance with the contract.
- 1.6 “Specifications” means the specifications forming a part of the contract for materials and works for the execution of the contract and as amplified, added or specified by special specifications, if any.
- 1.7 “Site” means the lands and or other place on, under on or through which the work is to be executed under the contract including any other lands or places which may be allotted by the corporation or used for the purpose of the contract.
- 1.8 “Letter of Award” shall mean the official notice issued by the OWNER notifying the contractor that his tender has been accepted.
- 1.9 “Guarantee period” shall mean the period during which the contractor shall remain liable for repair of any defect of the works performed under the contract.
- 1.10 Where the context so requires, words imparting the singular only also include the plural and vice-versa.

- 1.11 Heading & marginal notes to those General conditions shall not be deemed to form part thereof or be taken into consideration in the interpretation or construction thereof or of the contract.
- 1.12 All the documents pertaining to the contract including specifications, schedules correspondence etc., shall be written in English language.

2. **Performance Bank Guarantee:**

The successful bidder shall submit performance bank guarantee for 10% value of the contract within 15 days after award of contract. The performance bank guarantee shall be valid for a period of One year from date of commencement of work with a claim period of 2 months from Nationalised or scheduled bank in favour of Chief Executive Officer/APSPCL. The performance bank guarantee will be released after two months after satisfactory completion of work entrusted, which will not carry any interest. The Performance Bank Guarantee shall be forfeited if the Company does not fulfill any of the terms and conditions of the agreement.

3. **Terms of Payment:**

Payment shall be made on quarterly basis within 30 days from the date of submission of invoice by the Company after successful completion of work by RTGS or a cheque drawn on any scheduled bank payable at Vijayawada.

The amount payable for three months period shall be one-fourth of annual O&M charges and it will be paid after deducting penalties, if any, as per the terms and conditions of the agreement.

4. **Commencement and Period of Contract:**

The contract shall commence from the date of deployment of full manpower and necessary infrastructure in the work place as certified by the Engineer-in-charge and the period of contract shall be for 1 year from the date of commencement. The period of contract can be extended further for a maximum period of one year on mutually agreed terms and conditions.

5. **Availability and Penalty:**

The Contractor has to maintain 98% availability of the transmission system during the financial year including 220/33 kV Pooling Sub-station as per the CERC guidelines to avoid loss of generation from solar power plants. If actual Availability is less than 98%, the Contractor has to pay penalty as per the CERC guidelines. Availability and Penalty are calculated as per the following formulae:

$$(i) \text{ Availability for a given period (\%)} = \frac{(\text{No. of hours available for a given period}) \times 100}{(\text{Total no. of hours for a given period})}$$

(ii) When actual availability is less than the normative availability of 98%

$$\text{Penalty} = \text{O\&M charges for a given period} \times \left(1 - \frac{\text{Actual cumulative availability for a given period}}{98\%}\right)$$

Note: The Contractor has to mention O&M charges being levied for each sub-station in the bid. The same shall be used for calculating the penalty.

6. **Deployment of Man Power:**

- a) The Company shall provide necessary man power with minimum qualifications as specified in the technical specification and they will be tested for their knowledge for various Operations and maintenance activities in the Substation connecting to the transformers, breakers, isolators, issuing of line clear, etc., before actually engaging them by the Company;
- b) Each person deployed by the Company should be issued identity card with passport size photograph affixed on it and duly attested by the Company. A photo copy of such identity card to be given to Engineer-in-charge;
- c) Deployment of Man Power shall have the approval of the Officer in charge of APSPCL and the details regarding the antecedents of the proposed personnel shall have to be submitted to the officer in charge before actual deployment. The decision of the officer in charge in accepting or rejecting any person shall be final and binding.
- d) The Company has to submit the notary attested copies of certificates of employees and an undertaking on Rs.100/- stamp paper by the individual employee that the educational qualifications are true and if found incorrect at later stage, the Company is liable for suitable criminal and civil actions.
- e) Attendance copy of the manpower deployed duly certified by the Engineer-in-charge of APSPCL shall be submitted along with monthly invoice.
- f) The Company shall ensure that man power shortage shall not occur. In the event of man power shortage, penalty of Rs.1000 per shift/day per employee will be deducted from the charges payable to the Company under Clause 2.
- g) Workmen compensation insurance policy, Personnel accident policy, EPF & ESI Chalan copies shall be submitted along with monthly invoice.
- h) Coy of Company 'A' Grade Electrical License to be submitted along with monthly invoice.
- i) Working hours for manpower deployed shall be as follows:  
Shift A: 06:00 Hrs to 14:00 Hrs  
Shift B: 14:00 Hrs to 22:00 Hrs  
Shift C: 22:00 Hrs to 06:00 Hrs

7. **Insurance:**

- a) Insurance for the man power: The Company has to provide insurance coverage for the employees employed by him against any accidents that may arise not only while carrying out the operation and maintenance works at 220/33kV Pooling Substation and connected 220kV Lines but also during transport to and fro as well, during the contract period. The APSPCL is in no way responsible for any of the accidents.
- b) Insurance for the equipment: APSPCL shall obtain necessary Fire insurance and insurance cover for the major equipment in 220/33kV Pooling Substation and

connected 220 kV line as per the procedure in vogue. However, the Company has to do liaisoning with the Insurance Company for claiming insurance.

8. **Accidents:**

- a) The Company is responsible for any accidents caused to the personnel and damage to equipment during the period of contract. The Company is responsible for the loss sustained by APSPCL due to damage to the equipment.
- b) The Company shall be responsible for payment of compensation in case of accidents while carrying out the O&M works at Substations. APSPCL is in no way responsible for any of the accidents.
- c) The Company shall note that incase of carrying out the work in the vicinity of equipments in service, care must be taken to avoid any accidents. If any work is to be done on any of the equipment, the Company/its representative shall ensure that such works will be carried out only after taking proper line clear and safety precautions. It may clearly be noted that in no case APSPCL shall be responsible for any accidents that may occur and for any compensation to be paid arising out of the accidents.

9. **Statutory Rules, Acts & Regulations:**

- a) The Company shall indemnify APSPCL against all claims which may be made under the Workmen's Compensation Act or any statutory modification thereof or rules there under or otherwise in respect of any damage or compensation payable in consequence of any accident or injury sustained by any workman engaged in the performance of the business relating to this work contract. In all cases of personal injury to workmen employed by the Company on the work for which the Company is liable to pay compensation under the Workmen's compensation Act, the Company shall pay the prescribed medical fee to the Medical officer for issue of 'C' – 'D' forms as prescribed.
- b) The Company shall indemnify APSPCL against all claims which may be made under the Minimum Wages Act and Child Labour Act or any statutory modification thereof or rules there under or otherwise in respect of any damage or compensation arising in consequence of any dispute under these Acts.
- c) The Company shall indemnify APSPCL against all claims, which may be made in respect of any person employed by the Company on these works towards insurance charges or claims whatsoever.
- d) The Company has to obtain necessary license and competency certificate from the electrical inspectorate to handle the sub-stations, lines, equipment by the workers employed by him, during the period of contract.
- e) The Company has to make insurance coverage of accidents that may arise while carrying out the O&M duties of the Substations.
- f) The Company should follow all statutory rules, Acts and Regulations that are relevant and necessary for carrying out the O&M works of the Substations.
- g) Weekly off shall be given as prescribed under Minimum Wages Act to all the labour employed, leaves and holidays shall be given to labour as per contract labour Act 1972.
- h) The Company shall follow the provisions of Industrial Disputes Act in case of any dispute with its labour.
- i) For any failure of implementing the statutory rules and regulations by the Company the APSPCL will be at liberty to recover such amounts from the bills of the Company.

- j) No child labour should be employed.
- k) The Company shall be responsible for recruiting employees on its own. Under no circumstances, the employee of the Company shall be considered as APSPCL employee and claim remuneration on par with scales of APSPCL employees. The Company shall make it clear to the employees engaged by it that they are the employees of the Company and APSPCL has nothing to do with their employment or any other claim.
- l) The Company shall provide all statutory requirements and facilities to the man power engaged at its own cost.
- m) All registration and statutory fees if any in respect of contracts work pursuant to this contract shall be payable by the Company.
- n) The Company shall submit periodical returns as required under various labour laws in default whereof; the Company shall be solely liable for any actions as contemplated under the respective laws.

## **2.0 Contractor to Inform Himself the Following**

- 2.1 The contractor shall be deemed to have carefully examined all contract documents to his entire satisfaction. If he shall have any doubt as to the meaning of any portion of the contract documents, he shall, before signing the contract, set forth the particulars thereof and submit them to the corporation in writing in triplicate, in order that such doubts may be removed. The corporation will provide such clarification as may be necessary in writing to the contractor. Any information otherwise obtained from the corporation or the ENGINEER shall not in any way relieve the contractor of his responsibility to fulfill his obligations under the contract.

## **3.0 Discrepancies and adjustment of errors**

- a) If there are varying or conflicting provisions made in any documents forming part of the contract, the Managing Director shall be deciding authority with regard to the intention of document.
- b) Any error in description, quantity or rate in schedule of quantities or any omission there from shall not vitiate the contract or release the contract from the execution of the whole or any part of the works completed therein according to the specification or from any of his obligations under the contract.
- c) If on check, there found to be differences, between the percentage less/excess on ECV value given by the contractor in words and figures by him in the Schedule of quantities and general summary the same shall be adjusted in accordance with the following rules.
- d) In the event of a discrepancy between description in words and figures quoted by a tenderer, the description in words shall prevail.
- e) The under signed does not bind himself to accept the lowest or any tender. The undersigned reserves the right to reject any or all tenders without assigning any reason.

- f) Persons tendering must acquaint themselves and satisfy as to the physical conditions prevailing at the site.
- g) No telegraphic/Fax offers will be entertained and APSPCL Ltd will not consider any postal delay.
- h) The APSPCL reserves the right of deleting any or all items of the works mentioned in the schedule without assigning any reason thereof. The tenderer will not be eligible to claim any sort of compensation in this regard.
- i) The contractor shall provide to his workmen the required safety appliances including protective clothing and guards such as helmets, safety shoes, hand gloves, masks, safety belts etc., for working in Hazardous areas which shall be identified by the Executive Engineer / Engineer-in-charge.
- j) The contractor will be required to work either in hot or cold areas, near machines in operation otherwise involving special care on part of the contractor to see that the work is carried out with safety to the men and machines and without hampering the working of the concerned departments of the corporations.

#### **4.0 Subletting of Works**

- 4.1 The contractor shall not assign or sublet the contract or any part thereof, allow any persons to become interested therein in any manner whatsoever without the special written permission of Executive Engineer/Tech/APSPCL/Tadepalli/Guntur Dist. Any breach of this condition shall entitle the corporation to rescind the contract and also render the contractor liable for payment to corporation in respect of any loss or damage arising or ensuring from such cancellations. The permitted subletting of work by the contractor shall not establish any contractual relationship between the sub-contractor and corporation and shall not relieve the contractor of any responsibility under the contract.

#### **5.0 Electrical Safety Regulations**

- 5.1 In no circumstances shall the contractor interfere with the fuses and electrical equipment belonging to the APSPCL or other contractors. Before connecting electrical appliances to any Board or Socket belonging to other contractors or APSPCL, the contractor shall:
  - a) Satisfy and obtain permission of the Engineer-in-charge to that effect.
  - b) No electrical cable used by the contractor will be disturbed without prior permission.
  - c) No weight of any description will be imposed on any such cable and no ladder or equipment will rest against or be attached to it. No work shall carry or any live equipment without PERMIT TO WORK.

#### **6.0 Fire Protection**

- 6.1 The work procedures that are to be used during the execution of work shall be those, which minimize fire hazards to the extent practicable. Combustible materials, combustible waste and rubbish shall be collected and removed from the site at least once



in a day. Fuel oil, volatile or flammable materials shall be stored away from the work areas in safe containers. All the materials such as working drawings, documents etc., which are combustible but essential for the works to be executed shall be protected against combustion resulting from welding sparks, cutting, flanges and other similar fire sources, while doing welding, gas cutting work at elevated levels all care should be taken to protect sparks falling down by providing suitable coverage to avoid free fire and ensuring safety to personnel working in neighborhood.

## **7.0 Security**

- 7.1 The Tenderer/Contractor shall have total responsibility for all equipment and materials in his custody, loose, semi-assembled and/or erected serviced overhauled by him at site. The Tenderer/Contractor shall make suitable security arrangements including deployment of security personnel to ensure the protection all materials, equipment and works from theft, fire, pilferage and any other damages and loss.

## **8.0 Defect Liability**

- 8.1 The contractor shall be responsible to make good and remedy at his own cost within such a period as may be stipulated by the Engineer-in-charge any defect observed during the course of execution or which may develop or may be noticed before the expiry of the period mentioned in the Guarantee clause on intimation of which has been sent to the contractor within seven days of expiry of the said period by a letter sent by hand or Registered post.

## **9.0 Guarantee**

- 9.1 The contractor shall guarantee that all items executed by him shall be free from all defects and workmanship up to completion of work in all respects.
- 9.2 APSPCL shall also be entitled to recover any losses direct or indirect incurred due to non-fulfillment of contractual commitment in this regard.
- 9.3 The Guarantee period shall be 18 (Eighteen) months from the date of completion of work in all respects.

## **10.0 Urgent Works**

- 10.1 If any urgent work (where the decision of Engineer-in-charge is final and binding) becomes necessary and the contractor is unable or unwilling at once to carry it out, the Engineer-in-charge may carry it out as he may consider necessary on his own or by other people, if the urgent work is such as the contractor is liable under the contract to carry it out at his expense. All expenses incurred on it by the corporation shall be recoverable from the contractor and be adjusted or set off against any sum payable to him.

## **SECTION – III**

### **TECHNICAL SPECIFICATIONS**

#### **1.0 General**

- 1) This specification is to cover the proposed work “APSPCL –Carrying out Operation and Maintenance of 2 No. 220/33 kV Pooling Sub Station-3&4 and associated 220 kV DC lines including 33 kV lines at N.P. Kunta site of Ananthapuramu Ultra Mega Solar Park (1500 MW) and 2 Nos. 220/33kV Pooling Sub Stations-1&2 & associated 220kV DC lines including 33 kV lines at Talarichervu site of Ananthapuramu-II Ultra Mega Solar Park (500 MW), Ananthapuramu District, Andhra Pradesh for a period of 1 year. "
  - 2) Description of various items of work under this specification and nature of work in detail are given hereinafter.
  - 3) The work to be performed under this specification consists of providing man power, materials, consumables, equipment, transportation and all incidental items necessary for carrying out operation and maintenance, all in strict accordance with the specifications and including revisions and amendments thereto as may be required during the execution of the work.
  - 5) The operation and maintenance Works shall be carried out according to the approved drawings / Standard Procedures / Manuals.
  - 6) CONTRACTOR shall inspect the site, examine and obtain all information required and satisfy himself regarding matters and things such as access to site, communications, transport, the type and number of equipments and facilities required for the work, availability of local labour, materials and their rates, local working conditions, weather, etc. The contractor shall organize his own arrangements to transport men and materials to site. Ignorance of the site conditions shall not be accepted by the APSPCL as basis for any claim for compensation or extension of time. The submission of a bid by the CONTRACTOR will be construed as evidence that such an examination was made and any later claims /disputes in this regard to rates/lumpsum quoted shall not be entertained or considered by the APSPCL.
- 1.1.** The bidder shall resolve himself the local issues, if any, during the execution without any financial implications to APSPCL.

#### **2.0 Statutory Requirement**

CONTRACTOR shall comply with all the applicable statutory rules pertaining to Factory act, Fire & safety, rules of Tariff Advisory Committee, Water act for Pollution control, Explosives act etc. Provisions of Safety, health and welfare according to Factories act shall also be complied with. Statutory clearances and norms of State Pollution Control Board shall be followed.

- 3.0** The specifications for various works should confirm to the relevant clauses of the APSS, IS standards and also to the special specifications included in the tender schedule. If there is any difference between them, the special specifications will be applicable. If for any item of work, detailed specifications are not indicated either in

the technical specifications or in the APSS and ARE standards then that work shall be carried out as per the instructions of Engineer-in-charge. The execution of work and tests to be conducted during construction and on the materials shall confirm to the latest relevant I.S codes.

#### **4.0 Scope of Work:**

The broad scope of work to carry out operation and maintenance of 2 Nos. 220/33 kV Pooling Substations-3&4 and associated 220 kV DC lines including 33 kV lines at N.P. Kunta site of Ananthapuramu Ultra Mega Solar Park (1500 MW) and 2 Nos. 220/33kV Pooling Substations-1&2 and associated 220kV DC lines including 33 kV lines at Talaricheruvu of Ananthapuramu-II Ultra Mega Solar Park (500 MW) and also O&M of weather monitoring stations, Ananthapuramu District, Andhra Pradesh for a period of 1 year is as detailed below. A typical 220/33kV Pooling Substation is outlined in the single line diagram shown in the Annexure-V.

#### **Scope of the Contractor:**

- a) To carry out 24/7 shift operations by providing required man power, consumables and T&P.
- b) To carry out regular maintenance, preventive maintenance and breakdown maintenance of substation and connected lines by providing required man power / gangs, consumables, T&P etc as per the site requirement indicated by Engineer/In charge.
- c) To supply tools & tackles as per Annexure-III for carrying out operation & maintenance of sub-stations and connected 220 kV DC lines and 33 kV lines / Cables.
- d) To maintain operation log books, maintenance registers, history books for equipments, records etc as per the standards of APSPCL/APSLDC/SRLDC/ APTRANSCO and also maintain soft copy of the data.
- e) To provide consumables as per Annexure-IV and furniture as per site requirement.
- f) To coordinate with the OEMs/Vendors/AMC Service providers for any breakdown and preventive maintenance activity
- g) To carryout activities like Line- Clears, Safety Precautions etc in coordination with the concerned authorities like APSPCL / APSLDC/ APTRANSCO/ APDISCOMs/ SRLDC.
- h) To coordinate with APSPCL/APTRANSCO/APSLDC/APDISCOMs/SRLDC for any breakdowns/ line faults/ clearance and for restoration of normalcy, periodical inspections/ maintenance and day to day operations for preventive maintenance.
- i) To record energy meter readings as per scheduled time and maintain power generation and consumption records
- j) To carry out routine maintenance / periodical maintenance of all Sub-Station equipments including Power Transformers as per the standards/manufacturer recommendations which includes replacement of Silica gel, BDV test of transformer oil and measurement of earth resistance etc.
- k) To carryout transformer oil filtration and replacement of Transformer oil as per requirement. However the charges for replacement of oil will be reimbursed by APSPCL to the Contractor.
- l) To carryout routine/periodical/ breakdown & preventive maintenance of 220kV Lines and 33kV Lines which include patrolling for preventive maintenance. To provide T&P etc. as per the requirement and as indicated by Engineer-In-Charge.

- m) To maintain / engage suitable / qualified additional manpower/gangs/outside agencies in case of breakdowns for restoration in minimum time.
- n) To carryout periodical testing of relays and calibration of meters by third party as per the requirement and as per relevant standards.
- o) To carryout compliance works of findings during inspections of statutory bodies/APSPCL.
- p) To arrange for CEIG/statutory inspection annually including payment of relevant fees, if required.
- q) To keep record of incoming materials and materials replaced (Consumables/Spares Registers) and receipts & issues of (store) materials.
- r) To provide security staff round the clock (24x7).
- s) To carry out switchyard cleaning, cutting the grass within the Pooling Station premises regularly, clearing the grass/weed and gardening in the Campus.
- t) To provide housekeeping
- u) To provide necessary log books, data sheets and stationary
- v) To maintain the stores containing major spares provided by APSPCL
- w) To maintain records and submit reports to APSPCL as per requirement
- x) Routine cleaning, checking and maintenance of various firefighting appliances like CO<sub>2</sub> Extinguishers, DCP Extinguishers, Foam generators etc installed in the substations to ensure the ready availability for firefighting.
- y) Refilling of fire extinguishers components such as Co<sub>2</sub> gas, DCP etc., of the firefighting equipment's from time to time.
- z) APSPCL will provide necessary spares & equipment. However, in case of emergency, the Contractor has to procure required spares, which are not available in the Stores, from the open market and the cost will be reimbursed by APSPCL to the Contractor.

**Scope of the O&M of water supply schemes:**

- a) Operation of pumps at pumping stations.
- b) Checking of the pipe lines / equipment, observation for failures / damages, if any, immediate action and intimation to the concerned officers.
- c) Providing general watch & ward for pump house and reservoirs.
- d) Operation of valves for regulating water to the Solar Power Projects.
- e) Attending major repairs like replacement of damaged pipe lines, rewinding of motors etc.
- f) Attending minor repairs like replacing rubber gaskets to the valves etc.
- g) Arrest of leakage, if any, in the pipe lines.
- h) Minor electrical maintenances.
- i) The cost of components and hire charges of the equipment and repair charges for major repairs will be reimbursed by APSPCL at actual cost.
- j) The staff should be engaged in 3 shifts for operation of the pumps as per requirement. The staff deployed by the firm for operation of pumps should have minimum qualification of ITI electrician for safe operation of the pumps.

**General:**

- a) The company shall comply with Quality, Safety and Legal requirements as per the industrial practices/standards.
- b) The company shall handover the testing equipment provided by them in usable condition on completion/ termination of this agreement.

- c) The company has to maintain the stores for all the spares. The company shall take necessary permission from APSPCL before consuming the spares.
- d) The Company is responsible for transportation of men and materials required to carry out operation & maintenance of the sub-station and connected lines.
- e) The company has to maintain T & P and testing kits and handover to APSPCL in working condition after completion of agreement period.
- f) The Company has to maintain ACs/FANs/Motors/Furniture etc available in the sub-station and handover to APSPCL in working condition after completion of Agreement period.
- g) The company has to prepare Check Lists with periodicity/log sheets/maintenance registers/O&M instructions as per OEM Manuals and get approval from APSPCL.

### **1. Annexure-I: Detailed Scope of Work for O & M of 220/33 kV Pooling Substation**

The following works are to be carried out in the Sub-Station during the period of the contract under the guidance and control of APSPCL Engineer-in-charge of the Sub-Stations.

#### **1. Operational assistance relating to the operation of sub-stations:**

##### **A. General:**

- 1. Recording the readings at periodical intervals including Boundary Metering Points as specified by APSPCL/APTRANSCO/APDISCOMs/APSLDC/SRLDC and recording them in the Log-Book.
- 2. Recording all tripping of breakers and other events that occur in the order of sequence with the time of occurrence correctly and recording them in Log Book.
- 3. All operations are to be carried out correctly and accurately and are to be recorded in the Log Book.
- 4. Both hard and soft copies of interruptions recorded, Daily Generation Reports, Monthly Generation Reports and Yearly Generation reports are to be maintained and submitted to APSPCL.
- 5. Shall follow strictly operating instructions given by APSPCL/APSLDC/SRLDC to carry out the charging / operations & maintenance of equipment, taking / issue of LCs to the authorized persons etc.
- 6. Must observe all safety precautions and ensure safety to men and material and the equipment during the contract period.
- 7. Must attend to all breakdowns and emergencies which may arise during the contract period such as equipment failures, fire accidents etc shall get acquainted with all the operations such as isolating transformers and other equipments etc.
- 8. Shall attend to all telephone calls and issue receipt message promptly.
- 9. Shall prepare daily reports in the proforma prescribed by APSPCL in quadruplicate and submit to the concerned officers.
- 10. Shall be responsible for the equipment and other materials kept at the sub-station area. Shall also be responsible for watch and ward of the entire sub-station premises.
- 11. Shall be held responsible for any damages that occur due to mal-operations and shall make good the loss suffered by APSPCL.
- 12. Shall be alert and attend to all operations and events promptly without any delay.
- 13. Updating of interruptions Register, Phone Call register, Data Book, Battery register, Register of inspection of jumpers. Apart from the above, the Company shall carry out the following checks during the contract period daily.

14. To arrange for CEIG/statutory inspection annually including payment of relevant fees if required.
15. To carry out switchyard cleaning, cutting the grass within the Pooling Stations premises regularly, clearing the grass/weed and gardening in the Campus.
16. To coordinate with the OEMs/Vendors/AMC Service providers for any breakdown and preventive maintenance activity.
17. To carryout routine/periodical maintenance of 220kV Lines and 33kV Lines which include patrolling for preventive maintenance.
18. To carryout periodical testing of relays and calibration of meters by third party as per the requirement and as per relevant standards.
19. Maintenance of Air Conditioners like cleaning, filling of gas etc.
20. Procurement of stationary items like printing papers, printer cartridge etc.
21. Responsible for maintaining telephones and mobiles and their bills payment.
22. To arrange own internet facility for correspondence through e-mail with APSPCL and other organizations.
23. Printed L.C Books are to be maintained and NBFLC shall be taken for maintenance / breakdown works whenever necessary as per the standard procedure.
24. Checking of temperatures of Jumpers in the switch yard and 220kV lines with Thermo Vision Cameras.
25. Checking of lighting in switch yard, control room, battery room etc.,

#### **B. Transformers:**

1. Checking of oil level in conservator and temperatures of oil and winding and bushings and also oil leaks.
2. Checking un-usual internal noises.
3. To carryout transformer oil filtration and replacement of Transformer oil as per requirement. However the charges for replacement of oil will be reimbursed by APSPCL to the Contractor.
4. Checking and renewal of HG Fuses and Section fuses of Station Transformer.
5. Checking the condition of silica gel breather of transformer, oil level in oil cups.
6. Checking operation of Cooler Fans.
7. Checking operation of OLTC (ON-Load Tap Changer).

#### **C. Breakers:**

Checking healthiness of trip circuits, circuit breakers, SF6 gas pressure and its leakage, if any, to top-up SF6 gas, if necessary and to carry out other works specified by APSPCL.

#### **D. Switch Yard:**

Checking the yard at hourly intervals and note down any unusual observations, defects, sparks, loose contacts, red hot spots and loose bolts and nuts etc and informing the Engineer-in-charge.

#### **E. Batteries:**

1. Taking voltage and specific gravity of pilot cells daily during morning shift and for all cells weekly once.
2. Checking for DC Earth leakage.

## **F. Earth Pits:**

All the earth pits shall be watered daily.

## **G. General Visual Checks / Maintenance:**

1. To be carried out in each shift, as per operating instructions given by APSPCL and as per the CHECK LIST enclosed here in.
2. Any other minor works allotted by the concerned Officer of APSPCL at site.
3. The contractor shall report to the concerned Officer of APSPCL on important occurrences of Breakdowns and defects observed. The above works are to be done by the contractor.
4. Surroundings of the control room shall be kept clean daily and small flowering plants / landscaping with flower plants and lawns may be planted around the control room to have better appearance.

## **2. Maintenance Assistance Relating to the Maintenance of Sub-Stations:**

Periodical maintenance of all the equipment will be carried out by availing prearranged shutdowns.

### **A. Daily Maintenance**

#### **Power Transformers**

1. Checking the color of Silica gel in the breather and replacement or reconditioning if color changes from blue to pink say about 50% of the total quantity. Checking up of oil level of the oil seal (to be up to the level marked in the cup).
2. Checking of oil level in (a) main conservator (b) OLTC conservator (c) bushings and examining for leaks of oil.
3. Checking for noise and vibrations or any abnormality from cooling fans.

#### **220 kV Circuit Breakers**

4. SF6 gas density monitoring (in each shift).
5. Visual check of healthiness of TC-1, TC-2 and spring charge condition.

#### **Batteries / Battery Charger / DC Distribution System / AC Distribution System**

6. Checking of battery surface joints and all connections.
7. Voltage reading and specific gravity of pilot cells.
8. Visual checking of battery room ventilation and lighting.
9. Checking of healthiness of AC supply to the charger.
10. Output voltage check.
11. Checking for DC earth leakage.
12. Checking of emergency lights.
13. Checking D.C. Distribution (i) External (ii) Internal.
14. Checking A.C. Distribution (i) External (ii) Internal.

### **220kV Bay Kiosks and 33kV C and R Panels**

15. Visual checking of Control and Relay panels in 220 kV Bay Kiosks and 33kV Control and Relay Panels.
16. Visual checking of healthiness of Numerical relays.
17. SCADA database Maintenance like exporting the data and restoring the data.
18. Numerical relays testing, if required.

### **33kV Switch Gear Panels**

19. Visual checking switch gear Panels.
20. Visual checking of healthiness of TC-1, TC-2 and spring charge condition.
21. Service position indications to be observed. .

### **25kVA DG Set Maintenance**

22. Auto start of DG set
23. Checking engine oil levels, diesel level and 12V battery maintenance.
24. Preventive maintenance to be taken for the DG set as per the given schedule by the Supplier.

### **Lightning Arrestors**

25. Visual inspection
26. Surge counter reading.
27. Record the leakage currents

### **Isolators**

28. Visual inspection

### **Current Transformers**

29. Visual check
30. Oil leakage

### **Maintenance Of 220 kV C.V.T's and P.T's**

31. Oil leakage
32. Chattering sounds

### **Earth Pits**

33. Watering of earth pits

### **Chargers**

34. The floating voltage of the charger across the battery should be noted at the charger end, as well as at the battery end and it should be ensured that the floating voltages is kept at 2.16 volt per cell stabilized within + / - 1%.



35. The float charger has to be examined to check whether the same is working in 'Auto' mode only which the  $\pm 1\%$  voltages stability across the battery can be guaranteed. If the float charger manufacturers have to be called, to set right the float charger for ensuring its working in Auto mode.
36. The cell containers, stands, insulators, connectors, terminals etc, have to be cleaned every day.
37. In order to ensure that the full battery is available across the DC load terminals, it is necessary to switch-off the float charger for one-minute duration every day, at a specific time to note the battery discharging through the load of the bus bar. This will also ensure that battery is healthy and that there is no open circuit anywhere.

## **B. Monthly Maintenance**

1. Cleaning all bushings of Power transformer, station transformer LA's, CB's, CT's, CVT's, PT's & any other equipment.
2. Checking of Bucholtz relay for any gas or air entrapped.
3. Checking the Electrical circuits.
4. Replacing / reconditioning of silica gel in the breaker and its connected system.

## **C. Quarterly Maintenance:**

1. Collecting Power Transformer oil samples from the Power transformers and breathers and its connected system.
2. Checking of bushing and inspect for any cracks or chipping if any of the porcelain parts
3. Checking of earth connection at the transformer for tightness(such as neutral bushings and tank)
4. Checking of all auto start of cooling fans
5. Ensure oil levels in OLTC.
6. Checking of Buchholz relay for any gas collection and testing the gas collected.
7. Insulation resistance of winding is to be recorded.
8. Maintenance of Batteries.

## **D. Half Yearly Maintenance**

1. Checking of LA's and Bushings and Insulators for cracks, if any.
2. Collecting transformer oil samples for the BDV, DGA, water content, Tan delta, and Specific resistance of oil etc and testing at standard laboratory.
3. Checking of operation Buchholz relay.
4. Checking operation of Isolators and applying petroleum jelly.

## **E. Yearly Maintenance**

1. Collecting transformer oil samples from power transformer and OLTC for testing.
2. Measurements of IR values and Tan Delta values of Current Transformers.
3. Over hauling of cooling fans.
4. Calibrations of oil and winding temperature gauges.
5. Checking Bucholtz relay operation by injecting air into gas collection chambers.
6. Measurement of earth resistance by earth megger.
7. Checking the yard lighting.

8. All 220 kV, 33 kV protection relays are to be tested.

Recommended maintenance schedules given by the Suppliers for equipment like CTs, CVTs, PTs, 33 kV and 220 kV Circuit Breakers and Power Transformers are to be followed. Any other maintenance works or changes in the above schedule shall be done as per the directions of APSPCL.

### **3. Watch & Ward, Housekeeping and Gardening by Unskilled Labour:**

The scope of service to be provided by the company shall include but not limited to the following:

1. The employees engaged by the company shall be neatly dressed including whistle, shoes, torches with cells, canes/ lathis, raincoat etc.
2. Normally the company is prohibited in deploying same security personnel beyond eight hours duration. However, under exceptional circumstances, APSPCL may permit over time.
3. Each employee deployed by the company will be issued photo identity card and duly attested by the company.
4. Providing security coverage to protect the property of APSPCL at all times against theft, burglary, damage by unwanted elements, unauthorized removal of documents and property etc., from inside or outside the premises.
5. Providing safety cover to protect the office premises/ complex and their contents from damage by fire or water.
6. Providing assistance to APSPCL in case of strikes, riots and labour unrest.
7. Manning the posts identified by Engineer-in-charge round the clock for performing duties as allocated by Engineer-in-charge from time to time.
8. Assisting by actively participating in removal of unauthorized occupants / encroachments from the premises of the Sub Station.
9. Assisting liaison with civil and police authorities of the area / district where security coverage is being given. In this connection, the expenses if any towards TA, DA etc., has to be borne by the company.
10. Ensuring entry of the employees of the APSPCL etc., into the premises under all conditions including hindrances, dharnas, strike and gherao etc., caused by any individual or group of persons.
11. Controlling the movement of employees and visitors in the office premises as directed by Engineer-in-charge. To take charge of keys for locking & unlocking of office premises.
12. Checking all incoming and outgoing goods and vehicles and maintaining their record. Registering number of vehicles and their time of entry and exit should be noted. It shall be ensured that all items being transported to outside the sub-station are under valid gate pass.
13. Ensuring compliance of safety regulations including smoking restrictions and to assist as directed by Engineer-in-charge in prevention of accident.
14. The personnel should acquaint with location of all firefighting equipment and in giving assistance.
15. Recording all occurrences concerning the security in the log book.
16. Any other duty as may be assigned from time to time as per the requirement.
17. Safety & Protection of the personnel, property and assets, movable and immovable of Sub Station.

18. Locking & Unlocking of all office rooms / chambers, claims and switching off the lights, fans, power points, air-conditioners, heaters, motors etc., as required.
19. Intensive patrolling in the area specified by officer-in-charge from time to time with a view to complete assigned tasks.

### **Check List for the Shift Operators**

1. 220/33 kV Bus Voltages, frequency and Station load - hourly.
2. Check healthiness of trip indicators/alarms of all the breakers – every shift.
3. Check battery voltages, DC leakage, charger conditions, Switch off the charger and note battery voltage – every shift.
4. Check whether the battery is in Boost or Trickle charge condition – every shift.
5. Check the carrier phones in all directions and intimate the Telecom wing in case of trouble. Similarly, wireless and P&T phones are to be checked-up – every shift.
6. Check the 25 KVA Diesel Generator and make a trial run for 8 minutes once in a day. Check the voltages – 1<sup>st</sup> shift.
7. Check the annunciation panels. Press the lamp test and report the failure of lamps to maintenance wing – every shift.
8. Check the load and amperage in all phases on each feeder - hourly.
9. Check the Power Transformers physically. Note the oil and winding temperatures, load and tap position, cooling fans condition and oil levels in the conservator, tap changer diverter switch, Bushings and dehydrating breather – every shift.
10. Check the entire yard for any unusual sounds – every shift.
11. During night shift, check for sparking at joints/ jumpers – night shift.
12. Check the Gas pressure, air pressure in SF6 Circuit Breakers – every shift.
13. Check for any sparking or flashover marks at the earth pit connections and intimate the maintenance staff – every shift.
14. Check for proper watering of earth-pits – 1<sup>st</sup> shift.
15. Check whether all the energy meters of the feeders are working or not, report to staff on any defect noticed – every shift.
16. Activate protection and ensure proper isolation whenever LC is issued on any feeder / transformer/equipment.
17. Check the firefighting appliances availability at assigned locations – every shift.
18. Ensure that all the relevant relays flags are in 'RESET' position – every shift.
19. Note down the OLTC Counter – every shift.
20. Check voltage of 15 Nos. cells everyday so as all the 110 Nos. Cells of Battery are covered in a week – morning shift.
21. Whenever a feeder tripping occurs, contact the other end station and note down the Relay indications.
22. Disturbance Recorders are to be maintained properly.

**Annexure-II: Man Power Pattern and Qualifications**

a) Manpower for operation and maintenance of 2 Nos. 220/33kV Pooling Stations-3&4 and associated 220kV lines including 33kV lines at N.P.kunta site of Ananthapuramu Ultra Mega Solar Park (1500 MW)			
Sl. No.	Designation	No. of Employees	Qualification & experience
b. <u>Shift Operation in Substation:</u>			
1	Graduate Engineer	6	B.Tech(E.E.E) with 2-3 years experience in O&M of sub-stations
	Leave Reserve (Graduate Engineer)	2	
2	ITI Technician	6	ITI(Electrical) with 2-3 years experience in O&M of sub-stations
	Leave Reserve (ITI)	2	
c. <u>General Maintenance in Substation:</u>			
3	Sub-station Incharge	2	B.Tech(E.E.E) with 10-15 years experience in maintenance of 220 kV sub-stations and above
4	Graduate Engineer	2	B.Tech(E.E.E) with 5-10 years experience in MRT/Switchgear and SCADA of 220 kV sub-stations and above
5	Diploma Engineer / ITI	2	Diploma/ITI in electrical engg with 5-10 years experience in maintenance of 220 kV sub-stations and above
6	Security	8	10 <sup>th</sup> Class
7	House Keeping Staff	4	

b) Manpower for operation and maintenance of 2 Nos. 220/33kV Pooling Stations-1&2 and associated 220kV lines including 33kV lines at Talaricheruvu site of Ananthapuramu-II Ultra Mega Solar Park (500 MW)			
Sl. No.	Designation	No. of Employees	Qualification & experience
d. <u>Shift Operation in Substation:</u>			
1	Graduate Engineer	6	B.Tech(E.E.E) with 2-3 years experience in O&M of sub-stations
	Leave Reserve (Graduate Engineer)	2	
2	ITI Technician	6	ITI(Electrical) with 2-3 years experience in O&M of sub-stations
	Leave Reserve (ITI)	2	
e. <u>General Maintenance in Substation:</u>			
3	Sub-station Incharge	1	B.Tech(E.E.E) with 10-15 years experience in maintenance of 220 kV sub-stations and above
4	Graduate Engineer	3	B.Tech(E.E.E) with 5-10 years experience in MRT/Switchgear and SCADA of 220 kV sub-stations and above
5	Diploma Engineer / ITI	3	Diploma/ITI in electrical engg with 5-10 years experience in maintenance of 220 kV sub-stations and above
6	Security	8	10 <sup>th</sup> Class
7	House Keeping Staff	4	

**Note:** The contractor has to keep the manpower ready before commencement of the contract.

**Annexure-III: List of Tools & Tackles to be supplied by Contractor for each substation**

S. No	Item Description	Qty
1.	Ratchet Box	1
2.	Sling Wire	1
3.	Sling Fabric	1
4.	Spanners - Ring type	1 set
5.	Spanners - Flat type	1 set
6.	Spanners - Box type	1 set
7.	Spanners - Adjustable type - Big	1
8.	Spanners - Adjustable type - Small	1
9.	Screwdriver and Tool Box	1
10.	Tester	6
11.	Stripper	1
12.	Nose plier	1
13.	Align key set	1
14.	Drilling Machine	1
15.	Rechargeable Torch Light	2
16.	Helmets	10
17.	Rain Coats	5
18.	Gum Boots	for all O&M staff
19.	Wooden Mallet (Hammer)	1
20.	Earth Rods	24

**Note:** Contractor has to supply the above and any other tool & tackle apart from the above list, as per the site requirement.

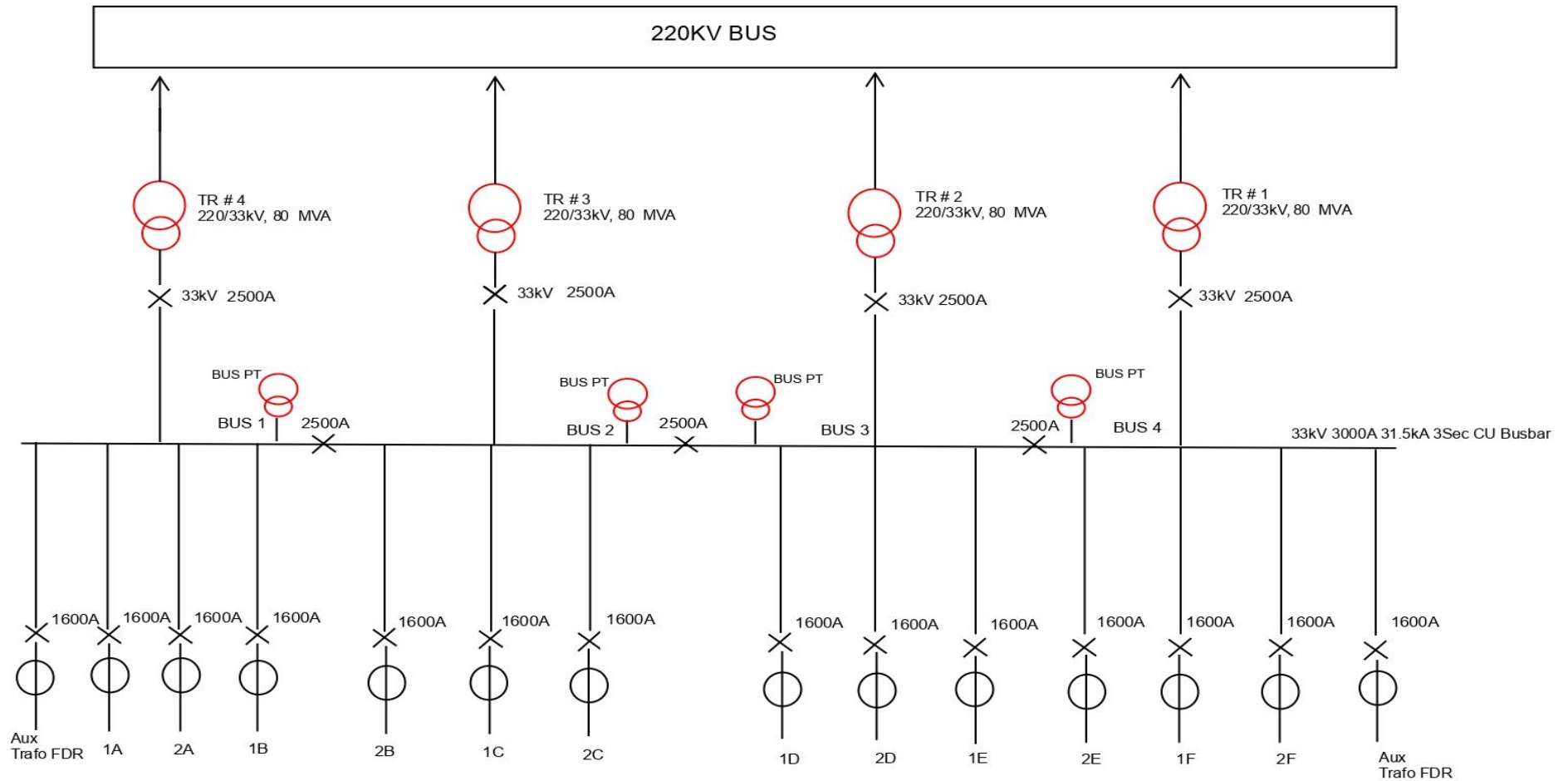
**Annexure-IV: Consumables to be supplied by Contractor for each substation**

1	Anabond	21	Kerosene
2	Banian Cloth	22	Land wire
3	Battery (Pencell)	23	Lugs (Aluminum / Copper) < 10 sq.mm
4	Battery Torch cell	24	Paintbrush
5	Brush	25	Pendant Holder
6	Twin Tube Lights, Tube Lights and Bulbs (60 W/40 W)	26	Petrol Diesel for cleaning
7	Chalk pieces	27	Petroleum jelly
8	Coir rope	28	Precision blue paste
9	Conical grinding stone	29	Raval plugs
10	Cotton tape roll	30	Sand paper
11	Cotton waste	31	Twine
12	CRC 2-26	32	Varnish
13	CTC	33	Wire brush
14	Cutting nozzle	34	Wood screws
15	Drill bits	35	Zinc Spray
16	Emery sheet (Coarse and Fine)	36	Silica gel
17	F.G. Tape Varnished roll	37	250 Watts Sodium Vapor Lamps
18	Fevicol	38	90Watts LED Bulbs
19	Gaada cloth	39	Insulation Tape
20	Grinding wheel (Cutting/Buffering)	40	Refilling of Fire Extinguishers

**Note:** Contractor has to supply the above and any other consumable apart from the above list, as per the site requirement.

## Annexure-V

### Typical Schematic Diagram of 220/33kV Pooling Sub-station in the Solar Park



\* Solar Developer-1 (1A, 1B, 1C, 1D, 1E, 1F)-->125 MW  
\* Solar Developer-2 (2A, 2B, 2C, 2D, 2E, 2F)-->125 MW

MAIN, CHECK &  
STANDBY  
METER

**SCHEDULE – A**

**PRICE SCHEDULE**

<b>S. No.</b>	<b>Description of Item</b>	<b>No. of years</b>	<b>O&amp;M Charges payable per annum excluding GST (Rs.)</b>	<b>O&amp;M Charges payable for 1 years excluding GST (Rs.)</b>
<b>1</b>	APSPCL –Carrying out Operation and Maintenance of 2 No. 220/33 kV Pooling Sub Station-3&4 and associated 220 kV DC lines including 33 kV lines at N.P. Kunta site of Ananthapuramu Ultra Mega Solar Park (1500 MW) and 2 Nos. 220/33kV Pooling Sub Stations-1&2 & associated 220kV DC lines including 33 kV lines at Talarichervu site of Ananthapuramu-II Ultra Mega Solar Park (500 MW), Ananthapuramu District, Andhra Pradesh for a period of 1 year.	<b>1</b>	<b>3,29,78,137.00</b>	<b>3,29,78,137.00</b>
	<b>Total Amount (excluding GST):</b>			<b>3,29,78,137.00</b>

- \*Note: 1) The bidder is required to quote for the total amount for all the above works.  
2) The rate shall be exclusive of GST which will be reimbursed at actuals as per applicable rates on submission of proof.



**PARTICULARS OF TENDERER**

**Name of the Work:** APSPCL –Carrying out Operation and Maintenance of 2 No. 220/33 kV Pooling Sub Station-3&4 and associated 220 kV DC lines including 33 kV lines at N.P. Kunta site of Ananthapuramu Ultra Mega Solar Park (1500 MW) and 2 Nos. 220/33kV Pooling Sub Stations-1&2 & associated 220kV DC lines including 33 kV lines at Talarichervu site of Ananthapuramu-II Ultra Mega Solar Park (500 MW), Ananthapuramu District, Andhra Pradesh for a period of 1 year.

Name of the Tenderer/ Contractor:

Name of the contact person responsible for the work:

Designation/ Status of the contact person:

Contact Details of the person responsible for the work:

Mobile Phone No.

Office Phone No.

Residence Phone No.

Any Other Phone No.

Present Address:

Permanent Address:

**PROFORMA FOR SELF DECLARATION**  
**(To be uploaded invariably along with bid documents)**

**Name of the work:** APSPCL –Carrying out Operation and Maintenance of 2 No. 220/33 kV Pooling Sub Station-3&4 and associated 220 kV DC lines including 33 kV lines at N.P. Kunta site of Ananthapuramu Ultra Mega Solar Park (1500 MW) and 2 Nos. 220/33kV Pooling Sub Stations-1&2 & associated 220kV DC lines including 33 kV lines at Talarichervu site of Ananthapuramu-II Ultra Mega Solar Park (500 MW), Ananthapuramu District, Andhra Pradesh for a period of 1 year.

Tender Notice No. APSPCL-e-E- 25/2021-22/EE/Tech/APSPCL, Dt.23.03.2022

\*\*\*\*\*

I/We ..... (Name and designation) authorized signatory of the tenderer, M/s ..... (hereinafter called the tenderer) for the purpose of the Tender documents for the work of as per the tender No. \_\_\_\_\_ do here by solemnly of firm and state on the behalf of tenderer including its constituents as under:

- 1) I/We the tenderer(s) am / are signing this document after carefully reading the contents.
- 2) I/We the tenderer(s) also accept all the conditions of the tender and have signed all the pages in confirmation thereof.
- 3) I/We hereby declare that I/We have downloaded the tender document from AP e-procurement portal. I/we have verified the contents of the tender document from the website and uploaded the required documents as per the tender specifications.
- 4) I/We hereby declare that I/We are fully qualified and eligible to bid for the work as per the eligibility criteria given in the tender notice.
- 5) I/We hereby declare that I/We have got the following minimum eligible criteria to bid for the work
  - a) The firm should have valid registration from Registrar of Firms or Register of Companies.
  - b) The firm should have “A” Grade License
  - c) The firm should have valid Labour License.
  - d) The bidder should be registered with ESI & EPF authority (submit copy of Registration Certificate).
  - e) The bidder should have carried out operation & maintenance of 220kV Sub-Station and 220 kV transmission lines for a minimum period of one year during the last five financial years.
  - f) The bidder should have carried out operation & maintenance of at least 1 No. 220kV Sub-Station in any one year during the last five financial years.
  - g) The bidder should have carried out operation & maintenance of 220 kV transmission lines with a minimum length of 5 km in any one year during the last five financial years.
  - h) The bidder should have experience in preventive and breakdown maintenance of 220kV substation and associated 220 kV transmission lines.
  - i) The bidder shall have all the above experience and the experience in supply of only manpower/assistance for operation & maintenance of substations and transmission lines are not eligible for quoting the tender.
  - j) The firm shall enclose P.O./Work order and completion certificate from the client clearly stating the above experience.
  - k) **Liquid asset/credit facilities/Solvency certificate** (not older than 12 months from the date of availability of tender specification on e-procurement platform) issued by any Indian Nationalized Bank or scheduled bank of value not less than 1/4<sup>th</sup> of estimated contract value (i.e., Rs. 82 lakhs approx.)
  - l) The bidder should have aggregate turnover of 3 times of estimated contract value (i.e., Rs. 10 Crores approx.) during last three preceding financial years put together i.e. from FY 2018-19 to FY 2020-21. The bidder shall submit annual turnover certificate duly certified by Chartered Accountant (CA).

- m) Payment of EMD for an amount Rs.3,29,781/- @ 1% of ECV (Rupees Three Lakhs Twenty Nine Thousand Seven Hundred and Eighty One Only) shall be 180 days from the date of bid opening).All terms and conditions of detailed tender specification.
- 6) I / we declare and certify that I /We will abide to follow all the statutory requirements such as labour act, minimum wages act, EPF & ESI etc.,
  - 7) I / we declare and certify that I / We have not made any misleading or false representation in the forms, statements and attachments in proof of the qualification requirements.
  - 8) I/we also understand that my / our offer will be evaluated based on the documents / credentials submitted along with the offer and same shall be binding upon me/us.
  - 9) I/we declare that the information and documents submitted along with the tender by me/us are correct and I/we are fully responsible for the correctness of the information and documents submitted by us.
  - 10) I/we understand that any of the certificates regarding eligibility criteria submitted by us are found to be forged / false or incorrect at any time during process for evaluation of tenders and afterwards, it shall lead to forfeiture of tender EMD besides my / our offer shall be summarily rejected. I understand that the bidder will be suspended from participating in the tenders on e-procurement platform for a period of 3 years. The e-procurement system would deactivate the user ID of such defaulting bidder based on the trigger/ recommendation by the Tender Inviting Authority in the system. Besides this, the department shall invoke all processes of law including criminal prosecution of such defaulting bidder as an act of extreme deterrence to avoid delays in the tender process for specified work/materials.
  - 11) I/we also understand that if any of the certificates submitted by us are found to be false / forged or incorrect at any time the award of the contract, it will lead to termination of the contract, along with forfeiture of EMD and 10% of Performance Bank Guarantee besides any other action mentioned above.
  - 12) I/We agree to keep the offer of this tender valid for a period of 180 days from the date of opening of tender and not to modify the whole or any part of it for any reason within the above period. If the tender is withdrawn by me/us for any reason whatsoever, within the validity period, the earnest money deposited by me/ us will be forfeited to APSPCL.
  - 13) I/We hereby distinctly and expressly declare and acknowledge that, before the submission of my/ our tender, I/We have carefully followed the instructions in the tender notice and have read the APSS and the Preliminary specifications therein.
  - 14) I/We have not been black listed in any department due to any reasons.
  - 15) I/We have not been demoted to lower category in any department for not filing the tenders after buying the tender schedules in a whole year and their registration had not been cancelled for a similar default in last two consecutive years.
  - 16) I/We will agree to get disqualified themselves for any wrong declaration in respect of the above and get their tender summarily rejected duly forfeiting the EMD.
  - 17) The soft copies uploaded by me/us are genuine. Any incorrectness / deviation noticed can be viewed seriously and apart from canceling the work duly forfeiting the Bid security, including suspension of business and/ or black listing.

18) The quoted price is exclusive of GST.

Signature of the bidder  
With seal

**DEVIATIONS (Technical and Commercial)**

Bidder's Name and Address

To,  
Andhra Pradesh Solar Power Corporation Pvt. Ltd

\_\_\_\_\_  
\_\_\_\_\_

Dear Sir,

Sub: APSPCL –Carrying out Operation and Maintenance of 2 No. 220/33 kV Pooling Sub Station-3&4 and associated 220 kV DC lines including 33 kV lines at N.P. Kunta site of Ananthapuramu Ultra Mega Solar Park (1500 MW) and 2 Nos. 220/33kV Pooling Sub Stations-1&2 & associated 220kV DC lines including 33 kV lines at Talarichervu site of Ananthapuramu-II Ultra Mega Solar Park (500 MW), Ananthapuramu District, Andhra Pradesh for a period of 1 year.

Ref: Tender No. APSPCL-e-E-25/2021-22/EE/Tech/APSPCL, Dt.23.03.2022.

\*\*\*

We confirm that following are the only deviations and variations from any exception to specifications and tender documents for the above mentioned subject supplies against enquiry/Tender No.\_\_\_\_ which are irrespective of what-so-ever has been stated to the contrary anywhere else of our offer. These deviations and variations are exhaustive. Except for these deviations, the entire supplies shall be executed as per specifications and tender documents. Further, we agree those additional conditions, if any, found in our offer other than those stated below, save that pertaining to any rebates offered shall not be given effect to.

SlNo.	Description of Deviation	Ref. Of Page & Clause of Bid Documents	Monetary implications of the conditions, in case of withdrawal	
			(Rs. in figures)	(Rs. in Words)
	<u>(A) Technical</u> <u>(B) Commercial</u>			

\*Note: Here the tenderer should indicate the amount of money, if any, which he would, charge extra (i.e. in addition to the rates quoted by him) for withdrawal of his conditions/deviations and accepting the condition as stipulated in tender documents. (Use additional sheet of the same size and format if necessary).

Name of the Bidder :  
Signature of Authorized :  
Representative :  
Name :

Designation :  
Date :

Seal of the Company:

